

44427

RBB

365



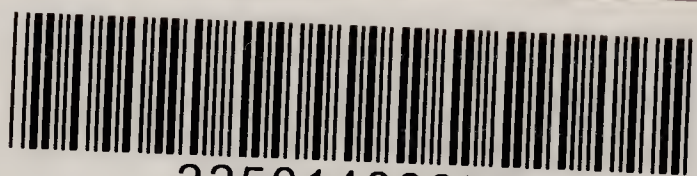
ANNUAL REPORT
OF THE
Department of Public Health
PROVINCE OF ALBERTA
INCLUDING
Vital Statistics Division
1951

PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY

EDMONTON
PRINTED BY A. SHNITKA, QUEEN'S PRINTER
1954



RBB/365



22501400052



ANNUAL REPORT

OF THE

Department of Public Health

PROVINCE OF ALBERTA

INCLUDING

Vital Statistics Division

1951

PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY

EDMONTON
PRINTED BY A. SHNITKA, QUEEN'S PRINTER
1954



WELLCOME INSTITUTE LIBRARY	
Coll.	wellcome
Call	A. 1. 1. 1.
No.	W 1128
	CC2
	A32
	1. 1. 1.

December 31, 1952.

TO HIS HONOUR,

J. J. BOWLEN,

Lieutenant Governor of the Province of Alberta.

SIR:

I have the honour to transmit herewith, the Annual Report of the Department of Public Health for the year 1951.

I have the honour to be, Sir,

Your obedient Servant,

WALLACE WARREN CROSS,

Minister of Health.

December 31, 1952.

TO THE HONOURABLE DR. W. W. CROSS,
Minister of Health,

Administration Building, Edmonton, Alberta.

SIR:

I have the honour to submit herewith, the Thirty-Third Annual Report of the Department of Public Health.

I have the honour to be Sir,

Your obedient Servant,

MALCOLM R. BOW, B.A., M.D., C.M., D.P.H.,
Deputy Minister.

CONTENTS

	Page
Summary	9
Communicable Diseases Division	37
Division of Entomology	45
Cancer Services	50
Cerebral Palsy Clinic	52
Health Education	55
Nutrition Services	58
Public Health Nursing Division	61
Division of Social Hygiene	68
Provincial Laboratory	74
Sanitary Engineering Division	85
Hospital and Medical Services Division	91
Division of Tuberculosis Control	124
Division of Mental Health	141
Provincial Mental Hospital, Ponoka	142
Provincial Mental Institute, Edmonton	146
Provincial Auxiliary Mental Hospital, Raymond	148
Provincial Auxiliary Mental Hospital, Claresholm	149
Provincial Training School, Red Deer	150
Rosehaven, Camrose	151
Guidance Clinics	154
Eugenics Board	158



Digitized by the Internet Archive
in 2019 with funding from
Wellcome Library

<https://archive.org/details/b31408424>

THIRTY-THIRD ANNUAL REPORT OF THE PROVINCIAL DEPARTMENT OF PUBLIC HEALTH INCLUDING THE VITAL STATISTICS DIVISION

Divisions:

1. Communicable Diseases.
2. Entomology.
3. Cancer Services.
4. Public Health Education.
7. Nutrition.
6. Public Health Nursing.
7. Social Hygiene.
8. Provincial Laboratory.
9. Sanitary Engineering.
10. Hospital and Medical Services.
11. Tuberculosis Control.
12. Mental Health.

Institutions: Provincial Mental Hospital, Ponoka.
Provincial Auxiliary Hospital, Claresholm.
Provincial Auxiliary Hospital, Raymond.
Provincial Mental Institute, Oliver.
Provincial Training School, Red Deer.

Guidance Clinics.

Eugenics Board.

13. Vital Statistics Division.

A report containing a summary of the work of each of these Divisions is included herewith.

PROVINCIAL BOARD OF HEALTH

Eight meetings of the Provincial Board of Health were held during the year.

AMENDMENTS AND REGULATIONS PASSED DURING THE YEAR

O.C. 64-51. Amendments to Provincial Board of Health Regulations providing for the licensing of embalmers. These amendments renumbered the regulations.

O.C. 353-51. Provincial Board of Health Regulations Governing Horse Meat. These new regulations provide that horse meat may be distributed for human consumption subject to certain restrictions. These restrictions are designed to ensure that the horse meat is safe for human consumption and that there are no misrepresentations in its sale.

LEGISLATION PASSED DURING THE YEAR

Health Unit Act (Chapter 38).

This is a new Act to be known as "The Health Unit Act".

Any municipality that wishes to be included in a health unit may pass a resolution to this effect and submit it to the Minister. Upon the recommendation of the Minister, the Lieutenant Governor in Council may constitute any area a health unit and the unit is to be

divided into wards. Provisions is made for the subsequent alteration of the boundaries of any health unit or of any ward of a health unit.

The Act provides that the health units will be administered by a board on which each ward is represented by one board member. The council of a municipality within which a ward is located is required to appoint a member of the council to be the member of the board representing that ward. Where a ward contains two or more municipalities, the council representing the greatest number of residents in the ward appoints one of its councillors to represent the ward. Each board member holds office during the pleasure of the council that appointed him until he ceases to be a councillor. The board elects one of its number as chairman and appoints a secretary-treasurer. The board is required to meet at least once every three months. The powers of the board to administer the health unit and to provide the health services are set out in detail in the Act.

The board of the health unit is authorized to employ staff, consisting of a medical officer, nurses, sanitary inspectors, etc. The number of persons employed is determined by the population of the health unit in the manner set out in the Act. Additional members of the staff may be employed but no grant is payable in respect of their salaries. Staff appointments, in respect of which grants are payable are subject to the approval of the Minister and the appointments are held during the pleasure of the board. Staff salaries are required to be in accordance with the salaries contained in a schedule recommended from time to time by the Provincial Government salary survey committee and approved by the Lieutenant Governor in Council. A board may pay salaries in excess of those approved in the schedule but the excess salaries are not considered in calculating the amount of the grant or the statutory deductions under The Public Service Pension Act. The Public Service Pension Act is made applicable to the staff of a health unit.

The board is required to prepare a budget of its estimated expenditure for each year and to submit the same to the Minister for his approval.

The Department of Health pays sixty per cent of the cost of all equipment, the purchase of which is approved by the Department, sixty per cent of the approved salaries of the staff and sixty per cent of all other operating costs approved by the Minister. The contributing councils pay the balance in proportion to their respective populations served by the health unit. A copy of the annual financial statement is to be submitted to the Minister and the books and accounts of the board may be inspected at any time by the Provincial Auditor.

The Act provides for the appointment of a director of health units by the provincial Department of Health who will assist and advise boards in carrying out their duties. The Lieutenant Governor in Council is given power to make regulations under the Act to facilitate its administration and the carrying out of its purposes.

Existing health units organized under The Public Health Act continue to operate under that Act until such time as they are re-constituted for operation under this Act by an order of the Lieutenant Governor in Council. Any health unit may be dis-established at any time by order of the Lieutenant Governor in Council.

The Act does not in any way affect the responsibility of municipalities for their indigent sick residents and a section is included to make this clear.

This Act came into force on April 7th, 1951.

Hospitalization of City Residents Act Amendment Act (Chapter 40).

This Act amends The Hospitalization of City Residents Act, being chapter 29 of the Statutes of Alberta, 1950.

Section 2, clause (a) is amended to make it clear that the definition of "council" means only the council of a city that is not included in a municipal hospital district.

Section 2, clause (b), which is the definition of "ratepayer", is struck out and a new clause substituted. The word "real" is added before the word "property" so that "ratepayer" means a person liable to pay taxes in respect of real property. The word "wife" is also changed to the word "spouse". This, if the ratepayer happens to be a woman the definition would include her husband in the same way that the wife of a ratepayer is included when the ratepayer is a man. The definition is further extended to include surviving spouse, dependent family and domestic female help of a deceased ratepayer whose estate is liable to pay the taxes in respect of real property for which the ratepayer was liable.

Section 3 is amended by striking out the words "or less" where they occur in clause (a) of subsection (1) and in clause (a) of subsection (2). The effect of this is that the city hospitalization scheme must provide for the payment by the patient of one dollar per day for standard ward hospitalization. The amount payable by the patient cannot be less than one dollar per day.

Section 3, subsection (1) is amended by the addition of a new clause (c) authorizing a minimum tax for hospital purposes not exceeding eight dollars.

Section 3, subsection (2), clause (b) is amended. The amendment makes it clear that the council may raise all or part of the money required to establish a hospitalization scheme for non-ratepayers by a tax on non-ratepayers or by a contract plan for hospitalization.

This Act came into force on April 7th, 1951.

Hospitals Act Amendment Act (Chapter 41).

This Act amends The Hospitals Act being chapter 184 of the Revised Statutes of Alberta, 1942.

Section 2, which is the interpretation section, is amended by the addition of a new clause (bb) immediately after clause (b) defining the expression "contract holder".

Section 2, clause (jj), which is the definition of "ratepayer" is struck out and a new clause substituted. The word "real" is added before the word "property" so that the word "ratepayer" means a person liable to pay taxes in respect of real property. The word "wife" is also changed to the word "spouse". Thus, if the ratepayer happened to be a woman the definition would include her husband in the same way that the wife of a ratepayer is included when the ratepayer is a man. These changes were approved by O.C. 816-50 subject to the enactment of this amendment retroactive to the first day of June, 1950. The definition is further extended to include the surviving spouse, dependent family and domestic female help of a

deceased ratepayer whose estate is liable to pay taxes. The effect of this is that when a ratepayer dies his wife and dependents are not deprived of the privilege of dollar a day hospitalization so long as the ratepayer's estate is liable to pay taxes.

Sections 3a to 3f are struck out and new sections are substituted in their stead. Section 3a is unchanged. Section 3b, subsection (1) is unchanged. Subsection (2) is new and authorizes the payment of grants on a per diem basis for hospitalization received by contract holders. The conditions of the payment of the grant are set out in the subsection. Subsection (3) is similar to the present subsection (2), except that it applies to the hospitalization of persons who are sixteen years of age or over rather than to all persons over the age of three years. The new subsection (4) sets out the grants payable in respect of the hospitalization of persons under sixteen years of age. Subsections (5) and (6) are new and deal with the per diem grants in respect of contract holders in cases where the conditions prescribed by subsection (2) are not met. Section (7) is similar to the present subsection (4).

Sections 3c and 3e are similar to the present section except that they are amended to include references to contract holders and to make the corresponding changes from three to sixteen years of age that was made in section 3b.

Section 3f is new. It provides for the case where a person is a ratepayer in two or more municipalities or municipal hospital districts each of which has entered into an agreement with a hospital. The section provides that the hospital render its account and the Minister pays the grant to the municipality of which the ratepayer is a resident, or if he is not resident in any of the municipalities, then the bill is rendered and the grant is paid to the municipality designated by the ratepayer.

Section 3g is the same as the former section 3f.

The heading "Incurables" preceding section 7 is struck out. This word was struck out of the section itself by an amendment in 1941 and is no longer properly descriptive of the persons to whom the section refers.

Section 13 which deals with the liability to pay for hospital services is amended by the addition of a new subsection immediately after subsection (1). The new subsection provides that a wife is not liable to pay for hospital charges incurred by her husband if he has deserted her or they are living separate and apart and he has not contributed to her support for six months. The wife is not liable for these charges if she is legally separated from her husband.

The Act came into force on April, 7th, 1951, except for the amendment to the definition of "ratepayer" which is retroactive to the 1st day of June, 1950, and for the new subsections (2) and (5) of section 3b providing for grants in respect of the hospitalization of contract holders which are to come into force on the 1st day of July, 1951.

Medical Profession Act Amendment Act (Chapter 51).

This Act amends The Medical Profession Act, being chapter 295 of the Revised Statutes of Alberta, 1942.

A new interpretation section is added to the Act defining a number of terms which are used throughout the Act.

Section 10 is struck out and a new section is substituted in its stead. This section deals with election procedure in connection with the election of members of the College of Physicians and Surgeons to the council of the College which administers its affairs. The new section requires the registrar to make out an alphabetical list of all practitioners and to mail a copy of the list to each practitioner. Any three members of the College resident in a medical electoral district may nominate a member of the College from that district. The nominee must accept the nomination and all nomination papers must be in the hands of the registrar at least five weeks prior to the election. Four weeks prior to the election the registrar mails to every member eligible to vote a ballot paper and a copy of the instruction to voters. Voting is by single transferable ballot and all ballots must be returned to the registrar in a sealed envelope before two o'clock in the afternoon on the day of election.

Section 14 is struck out and a new section is substituted. This section sets out the procedure for the opening of the ballots and for the counting of them.

Section 20 is struck out. This section was applicable to the former system of balloting but is now no longer required.

Section 32 is amended by the addition of a new subsection (2). This subsection requires the registrar to provide the Provincial Secretary with a roll of all members of the College and to keep him advised of all changes or alterations made in the roll.

Section 33 is amended to provide that academic qualifications for membership in the College will be determined by the General Faculty Council of the University of Alberta. Subsection (2) of section 33 is struck out and two new subsections are substituted which make it clear that the General Faculty Council of the University conducts and controls all examinations of candidates for admission to practise.

Subsection (4), (5) and (6) of section 33 are struck out and four new subsections are substituted. Subsection (4) provides that an applicant who holds a certificate from the Medical Council of Canada, the General Medical Council of Great Britain or the National Board of Medical Examiners of the United States shall be deemed to be qualified and entitled to registration. Subsection (5) and (6) provide that every other applicant must present his qualifications to the General Faculty Council of the University of Alberta for inspection. A doctor who does not have one of the certificates referred to above must satisfy the General Faculty Council of the University that his qualifications at the time they were acquired were at least the equivalent of those required for registration in the Province at that time. Such an applicant must also satisfy the council of the College that he has been in active practice throughout the major part of the five years immediately preceding the date of his application. If he graduated less than five years prior to the date of his application he must satisfy the council of the College that he has been in active practice or engaged in post graduate studies throughout the major part of the time between his graduation and his application for registration. An applicant who can meet these requirements is deemed to be qualified and entitled to registration.

Subsection (6a) provides that the General Faculty Council of the University, before issuing a certificate of qualification, may require

an applicant for registration who does not qualify above to take such examinations as it may fix or to pursue further studies. This provision is similar to that formerly contained in subsection (8) of section 33 which is struck out.

Section 34 is amended. This section contains a provision that a person granted an interim license to practise medicine pending the writing of his examinations may practise in any location not less than twenty miles from the nearest licensed medical practitioner. The portion of the section requiring an interim licensee to practise more than twenty miles from the nearest licensed practitioner is deleted.

Section 37 is amended by the addition of a new subsection (2) and by striking out the proviso to the present section. The effect of the amendment is that medical practitioners from the United Kingdom may practise in the Province irrespective of whether the United Kingdom extends a similar privilege to medical practitioners holding a certificate from the National Board of Medical Examiners of the United States to be registered and practise in the Province without further examination.

Sections 44, 46, 47 and 52 are each amended slightly for purposes of clarification.

A new subsection (3) is added to section 53. This subsection provides that where the name of a registered practitioner is erased from the register or where he is suspended, notice of such erasure or suspension shall be published in The Alberta Gazette and may be further publicized by the council of the College in its discretion.

Minor amendments are made to sections 58 and 60 for purposes of clarification.

Section 62 is struck out and a new section is substituted. The new section gives the council of the College a discretion to refuse registration or to suspend registration pending investigation of the conduct of any applicant or member who may have been guilty of conduct unbecoming to a member of the profession.

Section 63, is amended and section 66 is struck out and a new section is substituted. The changes made are minor and are simply for the purpose of clarifying the present sections.

Section 68 is struck out and a new section is substituted. The section provides that references to medical, homeopathic or osteopathic practitioners are to be construed as referring to persons registered under this Act in respect of their respective classes of practice.

Section 69 is amended by striking out the proviso to subsection (1) and by adding a new subsection (3). This new subsection makes it clear that nothing in this Act applies to or affects the practice of any profession or calling by any person practising under the authority of a general or special Act of the Legislature.

The form referred to in section 70 has been relettered so the reference to the Form in section 70 is corrected accordingly.

Section 72 is amended by making it subject to any Act entitling any person to practise chiropractic or any other non-drug science, therapy or system of practice. The effect of this is that such persons are not deemed to be practising medicine and consequently are not guilty of any offence against this Act.

Minor amendments are made to sections 74 and 78 for purposes of clarification.

The Schedule is amended by striking out Form A and substituting three new Forms. These new Forms are required by reason of the change in election procedure.

This Act came into force on July 1st, 1951.

Municipal Hospitals Act Amendment Act (Chapter 56).

This Act amends The Municipal Hospitals Act, being chapter 185 of the Revised Statutes of Alberta, 1942.

Section 2, clause (1) is amended and a new Section 11a is added immediately after section 11. It was the intention of the Act that a person liable to deliver a share of the crop as rental on provincial government lands should be entitled to the benefits conferred on a hospital supporter by this Act. For this purpose the word "ratepayer" was defined as including such a person. However, defining such a person as a ratepayer has led to difficulties in the application of certain sections of the Act which were intended to apply solely to ratepayers in the ordinary sense and not to persons liable to deliver of crop share. Accordingly, the reference to these persons is being deleted from the definition of the term "ratepayer". The new section 11a specifically provides that a person liable to deliver a share of the crop as rental of provincial government lands is entitled to the benefits conferred on a hospital supporter by this Act.

Section 10, subsection (3) and section 51, subsection (16) are amended to increase the payments to board members for attendance at meetings. The amendment authorizes the chairman to be paid ten dollars per day and each board member to be paid eight dollars per day.

Section 35, subsection (1) is struck out and three new subsections are substituted. This section deals with election of board members in an improvement district or in a municipality in which an administrator is substituted for the council. This subsection presently provides for the election of board members in such a district by the holding of election meetings. The effect of the amendment is to allow the Minister to follow an alternative procedure. The Minister may now provide for the appointment of a returning officer and the holding of a poll in the ordinary way in any case where he thinks this is preferable to the holding of election meetings.

Form D in the Schedule is amended by making a change in the Form to correspond with a change in the Act that was made in 1948 and overlooked in the Form at that time.

This Act came into force on April 7th, 1951.

Alberta Pharmaceutical Association Act, 1945, Amendment Act.
(Chapter 60)

This Act amends The Alberta Pharmaceutical Association Act, 1945, being chapter 15 of the Statutes of Alberta, 1945.

Section 25 is amended by striking out subsection (5), (6) and (7) and by substituting four new sections. The effect of these amendments is that academic qualifications for membership in the Association will no longer be determined by the Council of the Association but will be determined by the General Faculty Council of the University of Alberta.

The new section 25a requires the Council of the Association to enter into an agreement with the General Faculty Council of the University for the conduct of examinations. It also makes it clear that the General Faculty Council will conduct and determine the subjects of all examinations required under this Act.

The new section 25b deals with candidates other than those who have degrees from the University of Alberta. Such a candidate must satisfy the General Faculty Council of the University that his qualifications, at the time they were acquired, were at least the equivalent of the academic qualifications required for registration in the Province at that time. Such a candidate must also satisfy the Council of the Association that he has been in the active practice of pharmacy throughout the major part of the five years immediately preceding the date of the application if he graduated more than five years prior to his application. If he graduated less than five years prior to the date of his application he must satisfy the Council of the Association that he has been in the active practice of pharmacy or engaged in the post graduate study of pharmacy throughout the major part of the time between his graduation and his application for registration. A candidate who meets these requirements is deemed to have satisfactory academic qualifications.

The requirements of the new section 25c are similar to those contained in the former subsection (6) of section 25. It deals with the case of a pharmacist who is unable to qualify under section 25b. In such a case the University may prescribe such courses and examinations as it deems necessary in order to bring a candidate up to the academic qualifications required for registration in the Association.

The new section 25d requires the registrar of the Association to register every candidate who has satisfactory academic qualifications and who complies with the other requirements of the section. The application for registration must be made in person and the applicant must have been a resident of the Province for three months. He is also required to be twenty-one years of age, of good character and to produce evidence that his name has not been erased from the register of any pharmaceutical association and that he has not been convicted of malpractice. He is required to have practised or interned for a period of time equal to that required of graduates of the University of Alberta. He must also prove membership in a pharmaceutical association and must pay the prescribed fee.

Section 27b is amended slightly for purposes of clarification.

This Act came into force on July 1st, 1951.

Public Health Act Amendment Act (Chapter 66).

This Act amends The Public Health Act, being chapter 183 of the Revised Statutes of Alberta, 1942.

The amendments to this Act are complementary to the enactment of the New Health Unit Act, which came before the Legislature at this session. Existing health units organized under this Act continue to operate under this Act until such time as they can be re-constituted for operation under the new Health Unit Act by order of the Lieutenant Governor in Council made under that Act. When all the existing health units have been brought under the new Health Unit Act, the provisions of this Act applicable to the organization of health units are to be repealed. The effective date of the re-

peal is to be fixed by proclamation of the Lieutenant Governor in Council.

Section 2, clause (dd) is amended twice by this Act, one amendment came into force on April 7th, 1951, when The Health Unit Act came into force, and the other to come into force when the section of this Act relating to health units are repealed by proclamation. The amendment that came into force on April 7th, 1951, amends the definition of "Health unit" by including a reference to health units constituted under The Health Unit Act. The amendment to come into force on proclamation deletes from the definition the reference to health units formed under this Act.

Sections 24, 25, and 26 are repealed. These are the sections that deal with the organization of health units under this Act and their repeal is effective on the date to be fixed by the proclamation.

Five new sections 26a to 26e inclusive are added immediately after section 26. The new Health Unit Act does not apply to a city having a population in excess of fifty thousand. These new sections accordingly authorize the Minister to pay a grant to the council of such a city to assist it to provide public health services to its residents.

The extent of the public health staff employed by a city council in respect of which the grant may be calculated is set out in the Act. For the purpose of calculating the grant the salary of each member of the city public health staff is deemed to be the salary recommended by the salary survey committee of the Province and approved by the Lieutenant Governor in Council. The amount of the grant cannot exceed sixty per cent of the approved salaries of those members of the city public health staff designated in the Act.

The Act provides that a city council may employ a public health staff in excess of that designated in the Act and may pay salaries in excess of those approved by the Minister but such excess staff and such excess salaries are not considered in calculating the amount of the grant.

In addition to the grant authorized by these sections, the Minister is authorized to allot a portion of any Federal public health grant available for allotment by the Minister to the council of a city to assist it in the extension of such of its public health services as are approved by the Provincial Board of Health and for which no Provincial grant is paid.

A new section 26f is also added which provides for a Board of Visitors consisting of not more than four members. The Board of Visitors shall visit and inspect, at least once in each year, each mental hospital, sanatorium or other institution operated or administered by the Department of Public Health. The members of the Board may be paid an honorarium and travelling expenses.

Except as otherwise provided, the Act came into force on the day upon which it was assented to.

DEPARTMENT OF PUBLIC HEALTH			
REVENUE AND EXPENDITURE FOR THE FISCAL YEAR ENDED MARCH 31, 1952			
	Salaries	Expenses	Revenue
601. Administration (General)	\$ 4,922.73	\$ 202.51	\$
602. Administration (General)	54,231.07	4,003.36	411.40
618. Administration (Postage) .....	.....	4,519.55	.....
603. Hospital Division, Administration and Grants	9,486.50	1,223,011.53	55.00
605. Communicable Diseases	8,866.09	68,390.14	.....
605. Sanitary Engineering	19,102.81	9,568.03	9,878.40
606. Public Health Nursing	88,241.71	79,687.35	96,362.62
607. Bureau of Vital Statistics	53,124.19	9,990.44	96,362.62
608. Municipal Hospitals	6,253.50	3,131.88	.....
609. Insulin .....	.....	9,096.01	.....
610. Social Hygiene	55,758.96	17,783.27	35,707.83
619. Grants to University Hospital .....	.....	20,000.00	.....
622. Mental Health	24,047.94	14,496.71	.....
626. Public Health Laboratory .....	.....	185,314.77	.....
631. Poliomyelitis .....	.....	37,548.34	.....
633. Cancer Clinics	54,085.98	363,890.04	239,207.66
637. Maternity Hospitalization	3,653.69	1,036,430.63	.....
638. Civil Service Nurse	3,062.56	871.05	.....
639. Public Health Education	5,747.13	4,272.18	.....
640. Division of Entomology	8,108.72	4,601.90	.....
641. Health Units	3,119.18	156,290.62	.....
643. Nursing Aides Act	5,526.20	590.39	1,324.00
644. Pensioners, Hospital and Medical Services	10,170.90	1,322,978.78	.....
645. Health Services, Extension Program	161,150.70	435,419.38	674,869.66
646. Hospital Construction Grants .....	.....	1,311,152.26	526,598.76
647. Grants to Local Authorities	13,680.79	708,617.02	.....
648. Grants for Public Health Services .....	.....	36,187.09	.....
Institutions			
604-1. Division of T.B. Control	\$ 61,641.88	\$ 442,486.24	\$
604-2. Central Alberta Sanatorium, Calgary	422,487.52	259,018.33	210,604.19
604-3. Aberhart Memorial Sanatorium, Edmonton	63,156.64	47,763.80	4,569.74
612-1. } Prov. Mental Institute, Oliver	680,369.11	401,175.08	181,622.43
613-2. } .....	.....	.....	.....
612-2. } Prov. Training School, Red Deer	275,548.44	146,674.21	91,196.74
612-3. } .....	.....	.....	.....
613-1. } Prov. Mental Hospital, Ponoka	860,959.41	560,571.61	262,989.78
612-4. } .....	.....	.....	.....
612-4. } Prov. Auxiliary Mental Hospital, Claresholm	37,202.05	30,877.68	13,039.32
612-5. } .....	.....	.....	.....
612-5. } Prov. Auxiliary Mental Hospital, Raymond	53,055.93	30,970.85	10,250.35
	\$3,046,762.33	\$8,987,583.03	\$ 2,435,635.11
Total Expenditure Public Health Department			\$12,034,345.36
Less: Public Health Revenue			2,435.635.11
Net Expenditure, Department of Public Health			\$ 9,598,710.25

VITAL STATISTICS

Vital Statistics registered during the year are as follows:

Births	27,003
Marriages	9,305
Deaths	7,167

In all cases where rates are shown, such rates are based on a population of 939,501, this being the official census figure for 1951. In the following table, the number of births and the birth rate, the number of marriages and the marriage rate, and the number of deaths and the death rate are shown for each of the years from 1946 to 1951:

Year	No. of Births	Birth Rate	No. of Marriages	Marriages Rate	No. of Deaths	Death Rate
1946	22,184	27.63	9,478	11.80	6,601	8.21
1947	24,631	30.00	8,797	10.70	6,543	8.00
1948	24,075	28.50	8,844	10.50	6,987	8.30
1949	24,935	28.70	9,037	10.40	7,083	8.20
1950	25,625	28.70	9,294	10.40	6,856	7.70
1951	27,003	28.70	9,305	9.90	7,167	7.60

The birth rate for 1951 is 28.7, the same rate as for the previous year. The marriage rate for 1951 is 9.9 as compared with 10.4 for 1950. The death rate for 1951 is 7.6 as compared with 7.7 for 1950.

General Health Conditions.

The deaths of 7,167 persons were registered in Alberta in 1951. Of this number, 4,429 were males and 2,738 females. There were 311 more deaths registered than in the previous year. There were 302 deaths from Pneumonia in 1951, an increase of 27 as compared with the previous year, and 114 deaths from Influenza, an increase of 88 as compared with the previous year. Deaths from Pulmonary Tuberculosis numbered 119 in 1951 as compared with 137 for the previous year. The chief cause of death is heart disease, 2,113 deaths having been registered as due to this cause, giving a rate of 224.8 per 100,000 population, as compared with 228.6, the rate for the previous year. Deaths from cancer registered in 1951 number 1,065, a rate of 113.4 per 100,000 population, as compared with 997 deaths from this cause and a rate of 110.4 in 1950. Deaths from violence, excluding suicides numbered 563 as compared with 561 in 1950. The respective rate were 60.0 and 62.4.

The infantile mortality rate for 1951 is 33, as compared with 32 for the previous year. Special reference to the infantile mortality rate will be found in another section of this report.

The maternal mortality rate for 1951 is 0.6, as compared with 0.7 for 1950. More detailed reference to the maternal mortality rate will be found in another section of this report.

Seven deaths were reported as due to Whooping Cough in 1951, as compared with 3 deaths from this cause in 1950. Of these 7 deaths, 3 were infants under one year of age. A remarkable reduction in the Whooping Cough death rate has occurred in recent years, largely due to the immunization of children against this serious disease. It is important that children, and more especially those under two years of age, be immunized against Whooping Cough. The Department provides the vaccine for this purpose free of charge on the request of physicians and local health authorities.

There were 8,204 cases of Measles with 12 deaths, and 1,466 cases of Rubella with 8 deaths reported in 1951. More detailed information concerning Measles and Rubella will be found in the report of the Communicable Disease Division.

There were 2 cases of Diphtheria with 1 death reported in 1951, as compared with 13 cases and 1 death during the previous year. Of the 2 cases reported in 1951, 1 was reported by a city and 1 by a rural area. The death rate for Diphtheria in 1951 is 0.1, the same rate as for the previous year. No Diphtheria carriers were reported in the investigation of the source of Diphtheria cases.

Children should be immunized against Diphtheria early in life and such reinforcement of their immunity as may be found necessary on medical examination, should be given during the school life of the child. If such a routine practice were carried out in every district, Diphtheria would soon be wiped out. An outbreak of Diphtheria in any area is an indication of the lack of effective action in safeguarding the children of that community.

There have been no cases of Smallpox in the province since 1943. As pointed out in previous reports, there are many cases in the province in which parents have not taken advantage of the opportunity to have their children vaccinated against Smallpox. Should the disease appear in such communities, it would spread with great rapidity, and if the outbreak should be of the malignant type, the results would be tragic. It cannot be emphasized too often, that

children should be vaccinated against Smallpox within the first six months of life. Vaccination should be repeated at the time children enter school and need not again be done unless on exposure to the disease in after-life. Smallpox vaccine is provided free of charge by the Department to physicians, local boards of health and local school authorities.

In 1951, 2,304 cases of Scarlet Fever and 7 deaths from this cause were reported, as compared with 2,309 cases and 6 deaths in 1950. There was a high incidence of Scarlet Fever in a number of districts in 1951. Most of the cases reported were very mild. In many cases this disease, the rash which follows a slight sore throat is so transient that it is never seen by a physician. These are the types of cases that are largely responsible for the spread of infection. While severe types of Scarlet Fever are now very rare, they may still occur in an outbreak in which the prevailing type of the disease is very mild—hence, the importance of early recognition and prompt isolation of all cases and suspected cases of the disease that may develop.

There were 37 cases of Typhoid Fever and 3 cases of Paratyphoid Fever reported in 1951, as compared with 13 cases of Typhoid and 1 case of Paratyphoid Fever reported in 1950. There were no deaths reported from Typhoid Fever in 1951. Eleven of the Typhoid Fever cases reported in 1951 were due to water-borne infection in one community. The cooperation of the local health authorities with the Communicable Disease Division and the Sanitary Engineering Division of the Department, resulted in the outbreak promptly brought under control. Constant vigilance is the supervision and control of local water, milk and food supplies is essential for the protection of the community. Constant supervision of water treatment plants and pasteurization plants is essential if the water supply and the milk supply is to be properly safeguarded.

Poliomyelitis.

In 1951, 84 cases of poliomyelitis were reported and 2 deaths occurred from this cause. Under the provision made for free treatment of persons suffering from paralysis due to poliomyelitis, 26 patients were admitted to the University Hospital, Edmonton and 24 to the Red Cross Crippled Children's Hospital, Calgary.

Assistance was extended by the Department of Public Welfare, by which a number of patients were enabled to complete academic and secretarial courses and to take vocational training.

Tuberculosis.

During 1951, 146 deaths were reported from tuberculosis (all forms) as compared with 173 deaths in 1950. Of these 146 deaths, 68 were deaths of Indians. The deaths rate for all forms of tuberculosis for 1951 (including Indians) is 15.6, excluding deaths of Indians the death rate is 8.3 (per 100,000 population) as compared with 10.1 for the previous year, the lowest rate in the history of the Province.

Division of Entomology.

This Division deals with epidemiological problems associated with insect-borne diseases, more especially investigation relating to Sylvatic Plague, Rocky Mountain Spotted Fever and Tularaemia.

In connection with Rocky Mountain Spotted Fever survey work,

1,252 host and drag ticks were recovered in 60 collections. Of these, 281 were host ticks taken from small wild animals and 971 were taken by drag. Most of the field work in 1951 was carried on in new territory and no positive reports on these specimens were submitted by the laboratory.

There were 823 persons vaccinated against Rocky Mountain Spotted Fever in 1951, 360 at Mayberries; 351 at Redcliff; 76 at Thelma—Elkwater; 16 at Medicine Hat; and 20 at Bow Island.

One case of Rocky Mountain Spotted Fever was recorded at Medicine Hat. The infection developed following a tick bite on a farm at Eastend, Saskatchewan.

During the Sylvatic Plague survey, 138 collections were made from 1,089 animals, of which 1,050 were fleas and 28 tissue specimens. No specimens were found positive on laboratory examinations.

No positive reports were submitted in connection with Tularaemia investigation in 1951.

Fly and mosquito control is becoming an important part of the work of the Division of Entomology, as an increasing number of requests are being received from municipalities for assistance in the control of these insects pests. During the early spring of 1951, a fly control district, including the City of Lethbridge and nine towns and villages was established, with the assistance of funds made available under the Dominion-Provincial Health Grants and with the various municipal authorities participating in the expenditure required to carry on this work. The results of this experiment, details of which will be found in the report of the Division of Entomology, were encouraging.

Educational work in regard to the prevention and control of insect-borne disease was carried on along the same general lines as in previous years by means of lectures, the showing of films and the distribution of literature.

The assistance extended by the Department of National Health and Welfare in providing laboratory service which is essential in carrying on this work, is gratefully acknowledged.

Diseases of the Heart and Circulatory System.

Diseases of the heart accounted for 2,113 deaths in 1951, as compared with 2,046 in 1950. These 2,113 deaths represent 29.5 per cent of the total deaths from all causes reported for the year, giving a death rate of 224.8 per 100,000 population, as compared with 228.6 in 1950.

Diseases of the arteries were reported as the cause of 129 deaths in 1951, as compared with 133 in 1950. As mentioned in previous reports, the aging of our population is a factor in the increased number of deaths occurring from diseases of the heart and circulatory system. Periodic medical examination of children, as well as adults, would reveal many of these conditions in the early stages, when effective measures might be taken to deal with them. Early recognition and the prompt attention of skilled physicians would prevent much disability which is the result of diseases of the heart and circulatory system, and would prolong many lives. Here, as in so many of the degenerative diseases, "early" is the word.

Cancer.

In 1951, 1,065 deaths were registered as due to Cancer, as compared with 988 during the previous year. The death rate from

Cancer in 1951 was 113.4 (per 100,000 population) as compared with 110.4 in 1950. Cancer is second on the list of causes of death, accounting for 14.9 per cent of the total deaths registered in the province in 1951. Early recognition of cancer and prompt and effective treatment by competent physicians, would save a great many lives. "Early" is the word in Cancer.

The importance of educational work in connection with the Cancer programme, cannot be over-emphasized. As in previous years, educational work has been carried on by the Division of Cancer Services in cooperation with the Alberta Division of the Canadian Society for the Control of Cancer and the Alberta Division of the Canadian Medical Association.

The Diagnostic Clinics in Edmonton and Calgary were busy throughout the year. In order to provide much needed additional accommodation for the Edmonton Clinic, the building formerly occupied by the Obstetrical Department of the University Hospital was obtained and renovated. The Cancer Clinic moved into the new quarters on December 24. The Edmonton Clinic is now open five days a week, Monday to Friday, from 9:00 a.m. to 12:00 noon.

The following is a brief summary of the work done by the Diagnostic Clinics in 1951:

NUMBER OF PATIENTS EXAMINED			
	New	Follow-up	Total
Edmonton	2,414	2,868	5,282
Calgary	1,548	1,676	3,224
Lethbridge	362	166	528
Totals	4,324	4,730	9,034

It will be noted that the total number of new patients seen in 1951 is 4,324 as compared with 4,179 in 1950. Of these 4,324, 2,610 or 60 per cent were found to be non-malignant.

Statistical information concerning diagnosis and treatment will be found in the report of the Cancer Clinics.

Deaths Due to Violence.

Deaths reported as due to violence (excluding suicides and homicides) numbered 563 in 1951, as compared with 561 in 1950, representing 7.9 per cent of the total deaths registered in the province for the year and giving a death rate of 60.0 (per 100,000 population), as compared with 62.4 in 1950.

There were 86 suicides and 5 homicides in 1951, as compared with 82 and 12 respectively in 1950.

Highway accidents accounted for 226 deaths, of which 179 were due to motor vehicle accidents. It is apparent from these statistics that highway accidents constitute an important cause of death. When one takes into account the serious injuries suffered by many other persons involved in highway accidents and the great expense incurred in the provision of hospital and medical care, this problem is one of prime importance from the standpoint of public health.

There were 34 deaths reported from drowning in 1951, as compared with 35 in 1950. The need for continued education in water safety is indicated.

As in previous years, a number of deaths occurred as a result of the destruction of homes by fire—in a number of cases, with parents absent from the home and children of tender years left with no responsible person in charge. Here again, the need for continued education is evident.

In the following table, the deaths due to violence are classified:

Suicides	86	Accidents caused by hot substances, corrosive liquid, steam and radia- tion	4
Homicides	5	Accidents caused by firearms	13
Motor vehicle accidents	179	Accidental drowning	34
Other transport accidents	47	All other accidental causes	104
Accidental poisoning	28		
Accidental falls	89		
Accidents caused by machinery	35		
Accidents caused by fire and explosion	30		654

Infantile Mortality.

There were 889 deaths under one year of age registered in 1951, as compared with 831 such deaths in 1950, an increase of 58 deaths. The infantile mortality for 1951 is 33 as compared with 32 for 1950.

Of the 889 deaths occurred of children under one year of age in 1951, 557 or 62.6 per cent occurred within the first month of life, of which 462 occurred within the first week and 251 on the first day of life. In the continued expansion of our preventive health programme, and through the organization of additional full-time district health units now in progress, the solution of this problem will be found. In districts which have had the advantage of the service provided by full-time health units, for a number of years it has been found that the infantile death rate gradually falls to approximately the same level as in cities of the province with full-time public health services. An analysis of infant deaths will be found in the report of the Bureau of Vital Statistics.

Maternal Mortality.

The maternal death rate (deaths per 1,000 living births) in 1951 is 0.6 as compared with 0.7 in 1950. The average maternal death rate for the past five years is 1.14.

The following are the chief causes of maternal deaths registered in 1951:

Toxaemias of pregnancy	5
Haemorrhages associated with pregnancy	1
Other conditions of pregnancy	2
Delivery with complications	5
Other complications of puerperium	2
Total	15

The progressive reduction in the maternal death rate in recent years is most gratifying. We can look forward with every confidence to further reductions in our maternal and infant death rates as we go forward with our preventive health programme. Of the births registered in the province in 1951, 94.6 per cent occurred in approved hospitals.

Local Health Services.

There were in operation at the beginning of 1951, 9 District Health Units, with an average population of approximately 15,000. The Department cooperated with 8 school divisions, each of which provided a public health nurse. Much difficulty has been experienced in recent years by district boards of health in keeping their staff up to strength.

The District Health Units up to 1951, operated under the authority of the Public Health Act. At the 1951 session of the Legislature, a new Act known as The Health Unit Act was passed, providing for the establishment and operation of District Health Units. The new Act supersedes the provisions in the Public Health Act, concerning District Health Units. As the new Units were ready to take

over, the existing Units were disestablished and their assets and liabilities transferred to the new Units.

During the year, the following new Units were established:—

Foothills	Leduc-Strathcona
Mountain View	Alberta East Central
Drumheller	Sturgeon
Red Deer	Minburn-Vermilion.

The Minburn-Vermilion was a completely new Unit while the other incorporated existing Units. These Units have an average population of 28,000.

Under the new Health Unit Act, two significant changes were made in the administration. The area served by a Health Unit was divided into wards, each ward providing one board member. The Boards, with one exception, were limited to five members, replacing the former plan in which each contributing authority supplied one or more members to the board, which had become too unwieldy for efficient and economic operation. The boards were made corporate bodies and each appointed its own secretary-treasurer.

The other big change was in the financial administration. Formerly the financial administration of the District Health Units was carried out by the Department on behalf of the boards. The new Health Unit Act provided for each Unit to conduct its own financial administration, and this has proved a much more satisfactory arrangement.

The Units established during 1951 were organized from a territorial point of view in such a way that intervening parts of the province could later be organized into suitable areas. During the year, in addition to establishing the above mentioned Units, considerable ground work was done towards the establishment of further Units, including Medicine Hat, Bow Valley, Vegreville, Stony Plain, Athabasca and Grand Prairie. It is expected that the establishment of these additional Units will be completed in 1952.

The sum of \$26,187.09 was expended in provincial grants to the cities of Edmonton and Calgary, to aid in the extension of public health services in these cities. This is a new service instituted in 1951.

Health Education.

Health educational work is carried on through the publication of bulletins, pamphlets, articles in the press and by means of lectures, radio talks, movies, health exhibits and demonstrations. More than 100 publications issued by this Department and other organizations, are distributed by this Division.

The health film library was extended in 1951 by the addition of 38 sound films, many in colour, and 9 silent films, bringing the total films in the library up to 218. Nine filmstrips were purchased during the year, bringing the total of these up to 69. Carefully selected health films are among the most valuable media we have in health education. It is estimated that the films loaned by the Health Education Division in 1951, were seen by approximately 72,000 people.

A health education workshop for teachers was held in the Stony Plain School Division in 1951, with 40 teachers in attendance. This

demonstration workshop was most successful and it is planned to expand this service in future years.

Health education occupies an important place in the modern public health programme. There is an ever-increasing demand for health literature, films, radio talks and lectures, and almost invariably, the audience is a receptive one.

Detailed information concerning the various activities in the field of health education will be found in the report of the Division of Health Education.

Nutrition Services.

The work of the nutrition service has been carried on along much the same lines as in previous years. This programme is fundamentally one of continuous health education carried on with the active participation of public health personnel in the field. The literature, exhibits and films on nutrition have been shown to, and discussed with, local medical officers of health, public health and district nurses. Information concerning school lunches has been made available to public health personnel assisting in school lunch programmes.

Assistance was given to public health nurses planning talks and demonstrations to school and adult groups. Exhibits and nutrition materials for pre-natal, well-baby and pre-school clinics were made available.

The publication "Nutrition News" was distributed in order to keep health personnel informed concerning the trends in the field of nutrition.

Mimeographed materials prepared on such topics as classroom nutrition teaching, school lunches brought from home, and the organization and operation of school lunch programmes, were forwarded to teachers. Opportunities which school lunch programmes offer for nutrition teaching were discussed with teachers on the occasion of the visits of the nutritionist to the schools.

Food models, publications, posters, films and filmstrips were made available to teachers and reliable sources of other teaching materials were brought to their attention.

Requests were received from various adult groups for assistance in planning nutrition programmes, including Home and School Associations, the Canadian Consumer Association, church groups and community clubs.

Assistance was extended as in previous years, to the superintendents of small hospitals, school dormitories and other agencies, in developing and planning meals, a service which has been greatly appreciated by these groups.

An exhibit on nutrition was included in the health exhibit of the Department at the Provincial Exhibition in Edmonton.

This is an important public health service in which there is evidence of greatly increased public interest.

More detailed information concerning nutrition services will be found in the report of the Public Health Nutritionist.

Public Health Nursing.

There are 42 nurses on the staff of the Department (exclusive of public health nurses serving in District Health Units). The total number of services in operation in 1951 are as follows:—

37 municipal nursing services and 3 Well-Baby Clinic centres.

A new Municipal Nursing Service Act was passed in 1950, and the reorganization of the nursing service under the new Act brought many changes in the Public Health Nursing Division.

Miss Blanche Emerson who returned to the Department on September 1st, 1948, when Miss Jean Clark, the Director of the Public Health Nursing Division was granted leave of absence, retired on March 31st of this year. Miss Emerson gave outstanding service to the Department and the people of the province, over a period of twenty-nine years. Miss Marguerite M. Fitzsimmons, Assistant Director, became Acting Director on Miss Emerson's retirement, and Mrs. Dorothy McPhail was appointed Acting Assistant Director. Both are giving an excellent account of themselves.

Miss Marion Lavell, who had charge of the Well-Baby Clinic in Calgary for over thirty years, retired from the service of the Department on October 5th of this year, when the City of Calgary took over responsibility for the Clinic and continued Miss Lavell's services as Supervisor. Miss Lavell gave outstanding service through all the years during which she was responsible for the work of the Calgary Well- Baby Clinic.

The administration of the six nursing services in organized municipalities, namely, Bow Island, Foremost, Grassland, Milk River, Tulliby Lake and Warner, was taken over by the respective municipal councils, under the provisions of the New Municipal Nursing Service Act—the Public Health Nursing Division continuing to supervise these services and to extend every assistance to the municipalities in their administration.

New districts were opened at Slave Lake on January 1st, and at Winfield on September 1st. On October 1st, Wanham, which had formerly been administered by the Grande Prairie Municipal Hospital, was organized as a district under The Municipal Nursing Service Act. Each of these new districts has a very heavy programme.

The boundaries of the Sunnynook, Youngstown and New Brigden districts were extended to cover all of the Special Areas Nos. 2 and 3.

Part-time services at Craigmyle and Hemaruka were discontinued, and the District of MacKay was closed, the work not being sufficient to warrant a full-time service.

We have been fortunate in finding suitable replacements for nearly all the public health nursing personnel who have resigned or retired from the staff during the year. The quality of service rendered by our public health and district nurses, has been maintained at a high level.

The summary of the work of our District Nurses is shown in the following table:

Treatment Consultations	29,124
Miscellaneous Public Health consultations	9,947
Antepartum consultations	1,683
Postpartum consultations	453
Infant and pre-school consultations	5,274
Treatment home visits	7,015
Miscellaneous Public Health home visits	1,891
Communicable disease home visits	1,475
Maternal welfare home visits	495
Infant and pre-school Public Health home visits	976
Deliveries	80
Abortions	41
Patients sent to hospital or doctor	1,603
Deaths under 1 year	8

Deaths over 1 year	33
No. of doses of vaccines and sera	12,371
Communicable disease cases reported	1,855
Public Health literature distributed	6,196
IMMUNIZATIONS:	
Measles prophylactic	46
Diphtheria toxoid	4,920
Scarlet fever toxin	645
Smallpox vaccine	1,408
Whooping cough vaccine	5,068
Typhoid fever vaccine	32
Tetanus vaccine	11
Rocky Mountain spotted fever	46
Patch tests	207
Total number of doses	12,383

Detailed information concerning the activities of the Division of Public Health Nursing, will be found in the report of this Division.

Social Hygiene.

Five clinics were operated by the Division of Social Hygiene, one in Edmonton, one in Calgary, one in Lethbridge, one in Medicine Hat and one in McLennan. In addition, clinics continued to operate in each of the Provincial Gaols.

The Mobile Clinic spent considerable time during the summer months in doing serological service in the northeastern part of the province and treating "on the spot", those persons found infected with venereal disease. Splendid co-operation has been given by the Indian Affairs Services, in this work.

Each year, more and more people are reporting to the clinics for pre-marital blood tests. The number of new cases of syphilis so discovered is very small, but the procedure has a high educational value, and the law requiring pre-marital serological tests, is fulfilling its purpose admirably.

The total cases reported in Alberta in 1951, are as follows:

Syphilis 194, Gonorrhoea 1,326, making a total of 1,520. Of these, 104 cases of Syphilis and 354 of Gonorrhoea were reported by physicians, and 4 cases of Syphilis and 119 of Gonorrhoea were reported by the Armed Forces.

Approximately 83 per cent of the alleged sources of venereal disease infection in Alberta were found, and where necessary, brought under treatment.

Detailed information concerning the various activities of this Division is contained in the report of this Division.

Provincial Laboratory.

The staff of the Provincial Laboratory of Public Health, Edmonton and the Provincial Laboratory of Public Health, (Southern Branch) Calgary, made 213,138 examinations in 1951. The estimated value of the work done by both Laboratories in 1951, on the basis of minimum charges only for the various examinations performed is \$275,000.

The work of the Provincial Laboratories of Public Health includes examinations of water, ice, sewage, milk, food, various examinations in connection with communicable disease control, bacteriological, serological and pathological examinations of specimens submitted by physicians, local health authorities and hospitals, various medico-legal examinations and many other examinations too numerous to detail.

The Provincial Laboratories serve as centres for the distribution of vaccines and sera which are provided by the Department free of charge for the prevention and treatment of various communicable diseases.

The new Provincial Laboratory of Public Health building on the campus of the University of Alberta, was occupied in December 1950, and has made the most modern accommodation and facilities available for this vitally important service. The opening of the new Provincial Laboratory of Public Health at Edmonton and the new Southern Branch Laboratory at Calgary, to which reference was made in the Annual Report of 1950, has marked an important milestone in public health progress in Alberta.

All public health laboratory service is provided free of charge, with the exception of a few examinations which involve highly specialized procedures. Public health laboratory service is of vital importance in safeguarding the public health. We have been most fortunate since the inception of this service in 1907, in the high standard of service maintained by the staff.

Detailed information concerning the work of the Provincial Laboratories, will be found in the report of the Provincial Laboratories.

Sanitary Engineering and Sanitation.

Plans and specifications submitted to the Provincial Board of Health for waterworks, sewerage and sewage disposal plants, as well as extension of the same, have been carefully examined and where approved, the necessary certificates issued under the provisions of the Public Health Act.

The tremendous expansion in the construction of waterworks and sewage disposal plants and in the extension of existing plants in cities, towns and villages to which reference has been made in previous reports, has continued throughout 1951, on an even larger scale. This unprecedented increase in the number of waterworks and sewage systems, has resulted in a tremendous increase in the amount of supervision required if proper maintenance and operation procedures and the necessary public health precautions are to be observed.

Mr. W. A. Dexter, M.A.Sc., rejoined the staff as Assistant Provincial Sanitary Engineer in May after completing a post-graduate course in Sanitary Engineering at the School of Hygiene, University of Toronto. At least one additional sanitary engineer is required in order to keep pace with the tremendous expansion to which I have made reference.

The survey of the North Saskatchewan River was completed in 1951 and a detailed report on the same has been prepared. The Provincial Board of Health issued an order based on this survey, to the city of Edmonton, to install primary sewage treatment facilities by November 1st, 1954, and the Board also directed that dumping of garbage along the banks of the North Saskatchewan River be discontinued. A stream pollution survey of the Bow River and its tributaries, was started during the summer and it is hoped to complete this project in 1952.

The tourist camp inspection and classification programme, which was inaugurated in 1947 in co-operation with the Department of Industries and Labour, was continued along the same lines as in

previous years. Approximately 1,600 cabins in 179 tourist camps were licensed during the year.

A total of 2,724 inspections were made by the Health Inspectors of the Department in 1951, and the necessary action taken or assistance extended to local health authorities to deal with unsanitary conditions found.

The marked increase in the number of plumbing installations referred to in previous reports, has continued at an even more accelerated rate in 1951, as the following table indicates:—

Total No. Fixtures, New Construction	38,953
Reconstruction and Extensions	2,846
Permits granted	7,265
Charges made	\$38,953.98

With the unprecedented expansion which has taken place in plumbing installations in recent years, the time has come when the Plumbing Regulations should be amended to require that all towns and villages of 300 or more population, with water and sewerage facilities, should be required to appoint their own plumbing inspectors. The work of these inspectors should be subject to the supervision of the Provincial Plumbing Inspector. A short course should be arranged by the Provincial Plumbing Inspector in order to instruct and assist local plumbing inspectors in regard to their duties and responsibilities.

The Department also plans to arrange a short course for superintendents of water treatment and sewage plants in the villages, towns and smaller cities, with a view to the efficient supervision and operation of these plants.

I wish once again to call the attention of municipal authorities to the responsibility falling on them for the safeguarding of public water supplies. Failure to make certain that the public water supply is safe, resulted in one outbreak of water-borne disease in 1951. This is a matter which requires the most careful attention.

I wish to also direct the attention of municipal authorities to the responsibility resting on them for the supervision and control of public milk supplies. Any municipality which permits the sale of unsafe milk, will sooner or later experience a serious outbreak of milk-borne disease. It is encouraging to note that some 75 municipal authorities in Alberta, have passed bylaws requiring the pasteurization of their milk supplies.

Detailed information concerning the various activities of the Sanitary Engineering Division will be found in the report of this Division.

Division of Hospital and Medical Services.

In 1951, there were 101 approved hospitals in the province. In addition, 10 private hospitals were licensed under The Private Hospital Act. In addition to these hospitals, the Lloydminster United Municipal Hospital on the Saskatchewan side of the border, and the Fort Smith Hospital in the Northwest Territories, received the Government Grant covering Alberta patients admitted to these hospitals.

On the basis of bed capacity (including bassinets), the total number of hospital beds in 1951 is 6,519, and the complement 7,371. This represents 6.9 beds per 1,000 including bassinets, and 5.9 beds per 1,000 excluding bassinets.

The total patients days in 1951, are as follows:—

Adults and children	1,558,524
Newborn	219,896
Total	1,778,420

94.6 per cent of the births registered in Alberta in 1951 occurred in approved hospitals.

Construction of the following new hospital was started in 1951:—

Name of Hospital	Bed Capacity
Athabasca Municipal Hospital	42
Whitelaw Hospital (Chronic)	34

Construction of additions to the following hospitals was undertaken in 1951:—

Name of Hospital	Additional Beds (Excluding Bassinets)
Red Deer Municipal Hospital	57
Eckville Municipal Hospital	13
Innisfail Municipal Hospital	2
Edmonton General Hospital	180
Royal Alexandra Hospital, Edmonton (Maternity)	113

There were 50 municipal hospitals in operation in 1951, with a total capacity of 1,430 beds, excluding bassinets.

The daily average number of patients in all approved hospitals in 1951 was 4,872. The average stay in hospital 0.9 days. The average stay of newborn 8.6 days.

The shortage of nurses to which reference has been made in reports of previous years was still evident in 1951, particularly in the smaller hospitals.

Three hundred and sixty-seven nurses were graduated from the 10 Schools of Nursing in Alberta in 1951.

Two hundred and fifty-seven nursing aides were trained at the School for Nursing Aides. Since this School was opened in January 1946, 743 nursing aides have been trained. The nursing aides carry on their work under the supervision of graduate nurses and have given excellent service in the various hospitals in which they have been placed.

The cost of hospital construction and equipment has continued to rise in 1951 and as yet, shows little indication of levelling off. The cost of practically all supplies used by hospitals has continued to increase. The rising costs have been reflected in an ever-increasing cost of hospitalization and have resulted in difficult problems for those responsible for hospital administration, as well as for the public requiring hospital services. The average cost per patient per day for all hospitals is \$9.27 in 1951, as compared with \$8.71 in 1950. It is significant that 49.7 per cent of the average cost per patient per day is due to salaries and wages and 34.5 per cent to supplies.

Detailed statistical information concerning the approved hospitals will be found in the report of the Division of Hospital and Medical Services.

Cerebral Palsy Clinics.

The work of the Cerebral Palsy Clinic in Edmonton, which was opened in 1950, was expanded in 1951. In addition to the examining clinics held on Saturday mornings, a clinic was opened on Wednesday mornings for new patients. The clinic functions during the remainder of the week and an average of fifteen patients a day

attended the clinic for treatment, usually for a period of three months in the clinic, followed by three months at home.

In July, a three-day course was given at the University for parents and relations of patients, in order that they might be better prepared to carry on treatment at home. This course was well attended.

A well trained brace maker was added to the staff and accommodation was arranged for his shop in the Terrace Building. A well qualified speech therapist was added to the staff, and arrangements have been made to obtain the services of a teacher who has specialized in the teaching of handicapped children.

Construction of the new building in Edmonton, located between 115th and 116th Street, and 73rd and 74th Avenue on the South Side, is well underway and it is expected that this building will be available for use in the spring of 1952. The Southside Kiwanis Club is constructing a pavilion on the same property, which will be available for recreational purposes. With this new accommodation, the staff of the Cerebral Palsy Clinic in Edmonton, will have the advantage of greatly improved facilities for their work.

A start was made in the organization of a Cerebral Palsy Clinic in Calgary in July, with the co-operation of the Calgary Cerebral Palsy Association and the Red Cross Crippled Children's Hospital. In initiating this programme in Calgary, an effort has been made to make a survey in order to determine the number of cerebral palsy patients, and the type of treatment required.

It is estimated that there are at least 500 cases of cerebral palsy in Alberta under 15 years of age and that approximately two-thirds of these could be benefitted by treatment.

Detailed information concerning the work of the Cerebral Palsy Clinic will be found in the report of the Clinic.

Canadian Red Cross Blood Transfusion Service.

Under this service, which was instituted by the Canadian Red Cross Society in 1947, more than 15,000 patients received blood transfusions, representing 31,982½—500 cc bottles of blood. In addition, 1,674—500 cc tins of plasma were provided for 987 patients. Laboratory examinations in connection with the typing of blood and other blood examinations numbered many thousands. From the Central Depot in Edmonton and the Sub Depot in Calgary, this splendid service has been made available free of charge throughout the province.

During 1951, voluntary blood donations numbered more than 40,000.

We sincerely trust that the keen interest and fine co-operation of the public which these figures indicate, will continue unabated in order that the increasing demands for blood transfusions in grave illnesses, can be adequately met.

Division of Tuberculosis Control.

The number of treatment beds available for tuberculosis in 1951 was 492. The total number of patients admitted to all tuberculosis institutions in 1951 was 596, of which 16 were readmissions, and the total number of patients treated during the year was 1,059. The total institutional patient days was 165,853 including 2,442 patient days paid for in other provinces under the reciprocal agreement in

effect. The period of treatment of tuberculosis cases discharged from provincial sanatoria in 1951 was 9.2 months for pulmonary cases, and 5.5 months for non-pulmonary cases.

During the year, diagnostic examination totalled 237,131. In addition, diagnostic examinations totalling 14,043 were provided by the Indian Affairs Branch of the Department of National Health and Welfare. Mobile x-ray unit surveys accounted for 144,499 examinations of the above mentioned total of 237,131. I wish to express our sincere appreciation of the fine cooperation of the Alberta Tuberculosis Association in connection with the work of the mobile x-ray clinics. Altogether, 251,174 residents of the province received some form of diagnostic service this year.

Nine hundred and sixty new cases of active and inactive pulmonary tuberculosis (excluding Indians) were found in 1951. Of these, 449 or 46 per cent were considered minimal, 186 or 19 per cent moderately advanced, 101 or 10 per cent far advanced, 153 or 16 per cent primary, and 71 or 7 per cent tuberculous pleurisy with effusion.

The Alberta Tuberculosis Association has carried on its general programme along much the same lines as in previous years. Under this programme, x-ray equipment to provide for diagnostic service has been installed in a number of hospitals, and assistance has been extended to many patients in academic and vocational training. This is a constructive programme which means much to patients who in many cases have to face a change in their mode of life and type of employment.

Under the project for free sanatorium treatment of non-pulmonary tuberculosis patients under the Federal Tuberculosis Grant, 133 patients were admitted to hospital or sanatoria for treatment.

Forty-eight student nurses from four schools of nursing, spent two months of their training at the Central Alberta Sanatorium. Special arrangements were made for lectures and demonstration and practice in the technique of tuberculosis nursing. Post-graduate courses of six months duration were also provided for graduate nurses interested in the tuberculosis field.

Work on the construction of the Aberhart Memorial Sanatorium progressed throughout the year and it is expected that this splendid new institution will be ready for occupation by the fall of 1952. A nurses' home and a service building are under construction on ground adjacent to the new sanatorium. The facilities for the diagnosis and treatment of tuberculosis, which this new institution will provide, will mark a distinct forward step in the campaign against tuberculosis in Alberta.

The addition to the surgical section of the Central Alberta Sanatorium is nearing completion. This addition will make available, a second operating room and a second x-ray room, provide increased accommodation for the diagnostic clinic, the medical records offices and accommodation for a number of additional surgical beds on the second floor. These additional facilities will meet a long felt need at the Central Alberta Sanatorium.

Detailed information concerning the various activities of the Division of Tuberculosis Control, will be found in the report of this Division.

Division of Mental Health.

On January 1st, 1951, there were 3,369 patients in all mental institutions, and on December 31st, 3,439, an increase of 70 patients. The rate of hospitalized mental patients to general population has increased from 156 per 100,000 population in 1921, to 366 in 1951.

There were 654 patients admitted to the Provincial Mental Hospital, Ponoka in 1951 (338 male and 316 female). Five hundred and six patients were discharged during the year (242 male and 264 female). During the year, 88 deaths occurred (62 male and 26 female). There were 1,539 patients in hospital on December 31st, (919 male and 620 female).

There were 1,285 patients in the Provincial Mental Institute, Oliver, at the beginning of 1951 (950 male and 335 female) and 1,270 at the end of the year (937 male and 333 female). There were 282 patients admitted to the Provincial Mental Institute during the year (158 male and 124 female) and 248 patients discharged (137 male and 111 female). There were 52 deaths during the year (43 male and 9 female).

In the Auxiliary Mental Hospital at Claresholm, there were 98 female patients on January 1st, 1951 and 100 at the end of the year. During the year 12 patients were admitted, 6 discharged and 4 deaths occurred.

In the Auxiliary Mental Hospital at Raymond, there were 133 female patients in residence on January 1st, 1951 and 135 in hospital on December 31st. During the year, 6 patients were admitted, 3 were discharged and 1 death occurred.

There were 365 patients in the Provincial Training School for Mental Defectives at Red Deer on January 1st, 1951 (202 male and 163 female) and 395 patients on December 31st, 1951 (212 male and 183 female). There were 73 patients admitted to the Provincial Training School in 1951 (29 male and 44 female). Twenty-nine patients were discharged (10 male and 19 female), and 14 deaths occurred (9 male and 5 female).

Provincial Mental Hospital, Ponoka.

Instruction was given to 23 student nurses and 23 student attendants in the School of Nursing. In addition, 12 Registered Nurses completed the post-graduate course in psychiatric nursing. Twenty-six affiliate students from the Galt Hospital, Lethbridge and the Archer Memorial Hospital, Lamont, received a course of instruction extending over a period of 8 weeks. Seventeen public health nursing students from the University of Alberta spent 2 weeks at the hospital. At the annual Graduation Exercises, 9 nurses received diplomas in General Nursing and Psychiatric Nursing, 10 male attendants received certificates in Psychiatric Nursing, and 12 Registered Nurses who had completed the six month post-graduate course, received certificates in Psychiatric Nursing. An appropriate instruction programme was also carried out for ward aides.

Construction of a dormitory for the accommodation of approximately 90 patients was started in 1951.

Provincial Mental Institute, Oliver.

New construction at the Provincial Mental Institute, at Oliver during the year, included work of the new Tuberculosis Dormitory,

construction of a new recreational building and alterations to the main kitchen. The new Tuberculosis Dormitory when completed, will make available, the most modern facilities and equipment for the care of patients suffering from this disease. The new recreational building which will be completed early in 1952, will meet a long felt need.

Provincial Auxiliary Mental Hospital at Raymond and Claresholm.

There were no noteworthy changes during the year insofar as the administration of the Provincial Auxiliary Mental Hospital at Claresholm and the Provincial Auxiliary Mental Hospital at Raymond, were concerned.

Provincial Training School for Mental Defectives, Red Deer.

The work of the Provincial Training School for Mental Defectives was carried on along much the same lines as in previous years. A qualified dietitian, a certified occupational therapist, and a new farm instructor, were appointed to the staff in 1951.

New construction in 1951, included the following:

Two new pavilions to provide accommodation for mid-grade and low-grade children. A new Power House and an addition to the laundry, practically doubling the space available in the laundry.

Rosehaven, Camrose.

The work of this Institution which provides splendid accommodation for aged patients, was carried on under the supervision of the Division of Mental Health, as in previous years.

Guidance Clinics.

Alberta pioneered in providing preventive services in the field of mental health, the first Guidance Clinic having been established in Calgary in 1929. The establishment of travelling guidance clinics in recent years, has marked a further expansion of a programme which has given convincing proof of its value.

During the year, 1,261 new cases were presented at the various Guidance Clinics. Since the inception of this service in 1929, 11,821 patients have passed through the Guidance Clinics. The cooperation received by the Clinic staff from parents, school and health authorities, welfare and other community organizations, has been outstanding, and has contributed greatly to the successful operation of this service.

Eugenics Board.

The work of the Eugenics Board is carried on under the authority of the Sexual Sterilization Act. Ten meetings of the Board were held in 1951. During the year, 84 cases were presented to the Board and 82 cases were passed by the Board (34 males and 48 females). Since the Sexual Sterilization Act was proclaimed in 1929, 2,757 cases have been presented to the Board. During 1951, 16 male and 41 female cases were sterilized, bringing the total number of cases operated on to the end of December 1951, to 1,299, of which number 512 were male and 787 female. As in previous years, all operations were performed at the Provincial Mental Hospital, Ponoka.

The Department again wishes to express to the members of the Eugenics Board, the honourary surgeons and the staff of our various

Mental Institutions and Guidance Clinics, sincere appreciation of the fine services rendered by each and all in the discharge of their responsibilities.

Detailed information concerning the activities of the various Mental Institutions, Guidance Clinics and the Eugenics Board, will be found in the reports of these services.

Board of Visitors.

The Board of Visitors is constituted as follows: Dr. J. M. MacEachran, Chairman; Dr. R. Kenneth Thomson, Dr. E. R. Selby and Mrs. R. B. Gunn.

The Board visited the various institutions coming under the administration of the Department, as well as the Provincial Guidance Clinics, during the last week of September and the first week of October, and a report on each of these institutions and the Guidance Clinics, has been submitted by the Board.

The Department desires to express to the Board, its sincere appreciation of the excellent service it has rendered.

General Administration.

The statement of revenue and expenditure for the year ended March 31st, 1952, will be found on page 18 of this report. An analysis of this statement shows that the total expenditure for all activities of the Department was \$12,034,345.36, an increase of \$2,177,665.02 over the previous year. The total revenue was \$2,435,635.11, an increase of \$271,742.25 as compared with the previous year. The net expenditure of the Department was \$9,598,710.25, an increase of \$1,905,922.77 over the previous year. The sum of \$3,077,404.37 was expended for the maintenance and operation of the various mental institutions coming under the administration of the Department. The sum of \$1,296,544.41 was expended for the maintenance and operation of the Central Alberta Sanatorium at Calgary, the Aberhart Memorial Sanatorium at Edmonton and in providing medical care for tuberculosis patients in other Edmonton hospitals, and in providing diagnostic and other services. The sum of \$1,223,011.53 was expended by the Department in grants to approved hospitals. The sum of \$1,036,430.63 was expended in providing free maternity hospitalization. The sum of \$1,322,978.78 was expended in providing hospital, medical, dental and other services for pensioners and their dependents, and those in receipt of mother's allowances and their dependents. The sum \$1,311,152.26 was expended in providing hospital construction grants under the Federal Government programme of matching grants in aid of hospital construction, of which the Federal Government contributed \$526,598.76. \$417,976.02 was expended in providing cancer diagnostic and treatment services. The cancer grant received from the Department of National Health and Welfare under the Federal Health Grants programme, totalled \$239,207.66. \$185,314.77 was expended in grants provided for the operation of the Provincial Laboratory of Public Health in Edmonton, and the Southern Branch Laboratory in Calgary; \$167,929.06 was expended in providing public health and district nursing services. The revenue on account of these nursing services amounted to \$76,947.23; \$159,409.80 was expended in grants to district health units; \$708,617.02 was expended in grants to local authorities under the municipal hospitalization plan. The sum of \$596,570.08 was expended for various health services in

connection with the extension of health services under the Federal Health Grants Programme. Through the grants made available to the Department under the Federal Health Grants programme, the expansion of existing services and the development of a number of new health services and activities, was made possible. There has been a noteworthy expansion of the whole public health programme since the inception of the Federal Health Grants in 1948 in the reports of the various Divisions of the Department.

In concluding this summary of the activities of the Department for the year 1951, which will mark the last report for which I will be responsible as Deputy Minister of Public Health, I wish to record my sincere appreciation of the fine spirit of cooperation and the splendid service given by the directors and members of the staff of all Divisions of the Department, including the superintendents and members of the staff of all Institutions coming under the administration of the Department. We can look forward to the future with every confidence with a staff of such high quality.

Respectfully submitted,

MALCOM R. BOW, B.A., M.D., C.M., D.P.M.,
Deputy Minister of Health.

Communicable Diseases

(N. BASTER, M.D., B.Ch., D.P.H., *Director*)

The work of this Division has come under two headings:

1. Communicable Diseases.
2. The Health Unit Program.

This report has therefore been divided into two sections.

1. COMMUNICABLE DISEASES

This Division is responsible for co-ordinating measures taken to control communicable diseases throughout the Province. It comprises the general supervision of the programme of communicable disease control, and the direct application of the programme in the areas not yet organized for Local Government. In areas organized for Local Government, the conduct of the programme is the responsibility of the Local Health Authorities.

When the necessary control measures are beyond the scope of the Local Government Authorities, the Division assists, as it also does when co-ordination may be necessary to deal with an epidemic involving a number of Local Government areas.

The Division is also responsible for organizing the supply of prophylactic materials, which are distributed by the Provincial Laboratory.

Ascertainment is the first step in control and this has shown signs of improving during the year. Most cases are ascertained following notification. This is made to the Local Health Authority. The organization of an effective system of Local Health Authorities as is being done under the Health Unit Programme has greatly improved the proportion of cases notified. The appointment of a Medical Officer of Health and the organization of a Health Service means that upon receipt of notification of a case of infectious disease some action will be taken, this being so the doctors can see some point in notifying cases which they are treating. If notification results in no action being taken, they must of necessity feel that it is of no value notifying their cases, and they will cease to do so.

In addition an organized health service will ensure that full inquiry is made into each case, and further cases will often come to light as a result of their investigation.

All this will mean that during the next few years as the newly formed health authorities come into operation, there will be a great increase in the amount of disease notified, and it will be possible to get a better idea of the incidence of these various diseases in the Province.

For the next two or three years, therefore, the interpretation of our statistics on the incidence of communicable diseases will be difficult, and a sharp increase in the number of cases of a particular disease need not necessarily cause concern as it will probably only indicate an improvement in the notification of that disease.

Ascertainment by notification is supplemented in numerous ways—such as from laboratory reports on material submitted by doctors

to the Laboratory for bacteriological examination, and by local surveys.

The numbers of cases notified to this Division are compiled into a weekly report which is then transmitted to Ottawa, to neighboring Provinces, and to nearby States in the U.S.A., these agencies reciprocate. In addition, a copy of this weekly report is sent to each Local Health Authority in the Province. The result of this is to acquaint the Local Health Authorities with the position in neighboring areas. This is of considerable value in controlling communicable diseases.

During the year, a change was made in the system of notification. A weekly return of the number of cases of communicable diseases notified is now required from the Local Health Authorities instead of the transimmission of copies of each notification slip received. This has greatly reduced the amount of clerical work required for recording.

In addition to recording cases of active diseases, the Division keeps a record of carriers of certain diseases. This is checked from time to time. While every effort is made to render carriers free from infection, a small percentage will remain harbouring the infection in spite of all efforts, and they must be kept under surveillance if they are not to be a menace to the community at large.

The control of Communicable Diseases falls generally under three headings:

1. Sanitation.
2. The control of suffers and carriers.
3. Immunization.

A programme of artificial inmmunization is carried out by the Authority, supplemented by the Division of Sanitary Engineering of the Health Department in order to render environmental conditions such that communicable diseases will not spread.

The control of sufferers and carriers which are the source of infection is carried out by the Local Health Authorities, supplemented by this Division.

A programme of artificial immunization is carried out by the Local Health Authorities to raise the resistance of the residents in their areas against certain diseases which can be controlled by this means. Routine innoculation is carried out against Diphtheria, Whooping Cough and Small Pox. These are given to all children, (as far as possible). Typhoid, Paratyphoid, Rocky Mountain Spotted Fever innoculation is given to those at risk, and children under two years are immunized against measles when they are exposed to it. During the year the extent of the innoculation programme was greatly increased as compared to the previous year.

It will therefore be appreciated that the programme for the control of communicable diseases is extensive, and if it is to be effective, and waste is to be eliminated, it must have adequate supervision. Periodical assessment has to be made of the value of the various measures of control being carried out if the best value is to be obtained from the money expended.

In addition, the Director of the Division was available for consultation to physicians who availed themselves of this service in an increasing degree, in some cases directly, and in others through the Local Medical Officer of Health. This raises the question of

whether the Division should be divided and a part-time director be appointed, to deal with communicable diseases, who would also have hospital practice.

The position with regard to the provision of hospital beds for infectious cases gave some cause for worry. To deal effectively with communicable diseases, it is necessary for hospital beds to be provided for a proportion of the cases, which cannot be treated in their homes. The number of cases fluctuates considerably and it is therefore necessary to keep a number of beds empty against a sudden influx of patients. In addition the nursing of infectious patients requires more staff than the nursing of other patients. The provision of infectious disease beds is therefore more costly than the provision of other beds. This, in a small hospital, becomes so disproportionate as to be impracticable, and infectious disease beds can therefore be provided only by a large hospital.

The absence of an adequate number of infectious disease beds caused hardship in a number of cases during the year, and some thought will have to be given to meeting this situation which is at present deteriorating.

TABLE 1
NUMBER OF CASES OF COMMUNICABLE DISEASES REPORTED, 1950-1951

	1950	1951		1950	1951
Actinomycosis .....	...	...	Rocky Mountain Spotted Fever .....	...	1
Anthrax .....	...	...	Rubella	4,735	1,466
Acute Anterior Poliomyelitis ...	143	84	Scarlet Fever and Septic Sore		
Chicken Pox	2,982	4,621	Throat	2,309	2,328
Diphtheria	13	2	Smallpox .....	...	...
Dysentery	1	2	Tetanus .....	...	...
Encephalitis	4	2	T.B. Meningitis	5	...
Erysipelas	14	19	Tuberculosis (Pulmonary)	952	561
Food Poisoning	5	1	Tuberculosis (Non Pul.)	106	79
Glandular Fever .....	...	...	Trachoma .....	...	...
Infectious Hepatitis	24	45	Tularemia	4	...
Infectious Mononucleosis .....	...	1	Typhoid Fever	13	37
Malaria .....	...	...	Undulant Fever	14	6
Measles	1,538	8,204	Vincent's Angina .....	...	10
Cerebro-Spinal Meningitis	5	11	Whooping Cough	120	827
Mumps	5,053	4,435	Weils Disease .....	...	2
Paratyphoid	1	3			

TABLE 2
DEATHS ASCRIBED TO COMMUNICABLE DISEASES IN THE PROVINCE OF ALBERTA FOR THE YEAR 1950-1951

Disease	1950		1951	
	Total Deaths	Rate Per 100,000 Population	Total Deaths	Rate Per 100,000 Population
Acute Anterior Poliomyelitis and Polio-encephalitis	7	0.7	2	.2
Diarrhoea and Enteritis	0	0	0	0
Diphtheria	1	0.1	1	.1
Influenza	26	2.9	0	0
Measles	8	0.9	12	1.3
Meningococcal Meningitis	0	0	3	.3
Pneumonia	269	30.7	0	0
Scarlet Fever	0	0	6	.6
Small Pox	0	0	0	0
Tuberculosis Respiratory	137	15.3	119	12.7
Tuberculosis, Other	36	4.0	27	2.9
Typhoid	3	0.3	0	0
Whooping Cough	1	0.1	7	.7

DEPARTMENT OF PUBLIC HEALTH

TABLE 4
INCIDENCE OF SOME OF THE MORE SERIOUS COMMUNICABLE DISEASES FOR
THE TEN YEAR PERIOD, 1941-1951

DIPHTHERIA				
Date	Population	Total Cases	Total Deaths	Mortality Rate Per 100,000
1941	796,169	31	6	0.8
1942	805,152	58	11	1.4
1943	792,000	46	11	1.4
1944	818,000	57	5	0.6
1945	826,000	53	9	1.1
1946	803,330	48	7	0.9
1947	822,000	86	7	0.9
1948	846,000	52	6	.7
1949	871,000	59	12	1.4
1950	895,000	13	1	.1
1951	939,501	2	1	.1
TYPHOID FEVER				
1941	796,169	33	5	.60
1942	805,152	18	1	.10
1943	792,000	11	1	0.1
1944	818,000	101	8	1.0
1945	826,000	20	2	0.2
1946	803,330	9	0	0
1947	822,000	17	1	0.12
1948	846,000	13	0	0
1949	871,000	13	1	.11
1950	895,000	13	1	.1
1951	939,501	37	0	0
ACUTE ANTERIOR POLIOMYELITIS				
1941	796,169	167	8	1.0
1942	805,152	8	0	0
1943	792,000	24	0	0
1944	818,000	107	1	0.1
1945	826,000	19	0	0
1946	803,330	78	8	1.0
1947	822,000	84	7	0.9
1948	846,000	380	28	3.3
1949	871,000	127	9	1.0
1950	895,000	143	7	.7
1951	939,501	84	2	.2
WHOOPING COUGH				
1941	796,169	364	23	2.9
1942	805,152	1,131	12	1.5
1943	792,000	1,520	12	1.5
1944	818,000	757	42	5.7
1945	826,000	694	43	5.2
1946	803,330	308	19	2.3
1947	822,000	972	9	1.1
1948	846,000	1,178	11	1.3
1949	871,000	98	5	.57
1950	895,000	120	3	.3
1951	939,501	827	7	.7
SCARLET FEVER				
1941	796,169	792	6	0.8
1942	805,152	2,265	11	1.4
1943	792,000	1,675	7	0.9
1944	818,000	2,615	9	1.1
1945	826,000	1,358	1	0.1
1946	803,330	482	1	0.1
1947	822,000	225	0	0
1948	846,000	248	0	0
1949	871,000	865	0	0
1950	895,000	2,309	0	0
1951	939,501	2,304	6	.6
SMALL POX				
1941	796,169	1	0	0
1942	805,152	1	0	0
1943	792,000	2	0	0
1944	818,000	0	0	0
1945	826,000	0	0	0
1946	803,330	0	0	0
1947	822,000	0	0	0
1948	846,000	0	0	0
1949	871,000	0	0	0
1950	895,000	0	0	0
1951	939,501	0	0	0

Diphtheria.

The increasing activity of Local Health Agencies in the inoculation field is reflected in the sharp decline in the number of cases of diphtheria reported, the disease has to all purposes now become a rarity. Provided that the present level of immunization can be maintained, we need anticipate no further diphtheria apart from the odd cases which may be imported into the Province by visitors, or new arrivals.

Chicken Pox.

This occurred in considerable numbers. Fortunately as far as it is known it causes no serious trouble to the sufferers. It is highly infectious, and very difficult to control, and it is doubtful if any change can be expected in the present picture for some years.

Measles.

Measles appears in epidemic form in alternate years. 1951 was an epidemic year, and a considerable number of cases were reported. Improved ascertainment following the improvement in local health services also probably greatly boosted the number of cases reported. This is a highly infectious disease which is difficult to control and therefore it is difficult to reduce the incidence. However, during the year the use of Gamma Globulin became more general for infants under the age of two years. This gives only a short term protection, but it protects children of the age when most complications arise. It is interesting to note that the case fatality rate in 1951 was only two-thirds that of 1949, the previous epidemic year.

Infectious Hepatitis.

The apparent rise in the incidence of this disease is no doubt chiefly accounted for by improved ascertainment. Only a relatively small proportion of the cases of this disease are recorded. In view of the ease with which the disease is spread, and the wide scatter of the few cases which are reported, there must be very many cases which go unreported.

Scarlet Fever.

This is heavily endemic in this Province as it is elsewhere in the areas of temperate climate. The apparent incidence of the disease is directly related to the efforts made to ascertain it. Most of the cases are very mild, scarlet fever is a sore throat plus a red rash. Sometimes this rash is so transient and slight that it is not seen. Sore throat may be so mild as to be barely noticed. In view of this it is obvious that a considerable proportion of the cases of scarlet fever are never seen by a physician. The control of the disease from a community point of view is almost impossible. Cases of severe scarlet fever are now rare though they do still occur. Chemoprophylaxis using sulphadiazol was tried during the year. It is useful in selected epidemics. The use of scarletinal toxin for prophylaxis is not recommended by this Division as (1) there is still some doubt as to its efficiency; (2) it is a most prolonged and time consuming manouvre; (3) the Public Health Services have insufficient staff to discharge properly their responsibilities and it would seem inadvisable to recommend their spending so much time on a manouvre which produces for the effort spent so little beneficial effect.

Tuberculosis

Both the incidences of pulmonary and the non-pulmonary tuberculosis showed a marked fall. This is very encouraging, and one feels that as the cases become fewer in number more time will be available for the remaining cases, and before long control of this disease, so economically crippling, will be well in hand.

Typhoid.

Typhoid is generally endemic in this Province. One very striking feature of the typhoid which was reported in 1951 was the typical nature of the cases and their mildness. Possibly prompt antibiotic treatment usually given before a diagnosis was made changed the picture in many cases. The necessity of taking blood for culture and stools for examination before giving chloromycetin was stressed on every occasion. Even in cases not treated until late in the illness, the mildness of the illness in many cases was striking. It is difficult to be certain but the increase in the incidence was once again most probably due to better ascertainment.

Whooping Cough.

There was a sharp rise in the number of cases of whooping cough notified. The spread of whooping cough is exceedingly difficult to control—the disease being highly infectious. Prior to the introduction of vaccination most children probably suffered an attack of whooping cough. This disease, due to its after effects is serious, and is therefore one which we should make every effort to control. These efforts are being assisted by: (1) Vaccination, (2) The use of newer and very effective treatments. Vaccine was widely used in the Province during the year. Its effectiveness cannot be shown in any cut and dried way, due to incomplete notification and change in the degree of notification for instance the apparent incidence of 1950 and 1951 are not comparable. However, the number of deaths recorded is probably fairly accurate, and the increase in the use of vaccine has been accompanied by a sharp decrease in the number of deaths.

The disease has a cycle of about four years, and 1951 was one of the years in which a high incidence was to be expected. It is probably significant that the number of cases reported was not excessively high. There has been some difficulty in diagnosis. In several epidemics reported during the year, the characteristic whoop was absent. This may be due to the effect of vaccine in reducing the severity of the disease or perhaps the cases were not whooping cough but a virus bronchitis. Efforts were made during the year to establish a system of diagnosis by per-nasal swabbing, and in order to prevent the probable death of the organism in transit, Dr. Stuart of the Provincial Laboratory supplied containers of medium which would prolong the life of the organism on the swabs. Difficulties in transport, however, were great and we were not too successful. Further efforts will be made this year to obtain some effective system of confirming the clinical diagnosis.

2. THE HEALTH UNIT PROGRAMME

The supervision of the Health Unit program became part of the responsibilities of the Communicable Disease Division some years ago.

This programme was started in 1931 when two units were founded with the co-operation of the Rockefeller Foundation. These two pilot units were successful and their value recognized to the extent that the Provincial Government and Local Authorities took them over and continued them, and in subsequent years established several more. The programme was well under way in 1939 when the war put a stop to its further expansion.

The essence of this scheme is to group local authorities together into groups large enough to employ an adequately trained staff to provide public health facilities in the area. Apart from the cities of Calgary and Edmonton, no local authority has a population large enough to provide a satisfactory public health service. The two aspects of this are firstly, that it is uneconomical to employ adequately trained personnel who are not going to be fully occupied, and secondly that if the staff are to keep up a good level of efficiency they must have an adequate amount of varied work to do.

To provide a full Public Health Service, it is estimated that a population of one hundred thousand is required. This is said to be the optimum population. Unfortunately due to the scatter of our population, it is not possible with the present population of the Province to form manageable units with this population, a compromise has to be made between population and area, and the effort has been made to form units of between twenty and fifty thousand. Experience gained during the year showed that in several cases the smaller units could be enlarged without adversely affecting their efficiency, added to which the growth of population in the Province is operating in their favour. Due to a number of factors, the programme was not operating very satisfactorily, and only a relatively small part of the population of the Province was enjoying the benefits of organized health services. There were in operation at the beginning of this year only nine units of an average population of about fifteen thousand. They were mostly hampered by lack of staff. In addition, the Department co-operated with eight school divisions which each provided a Public Health Nurse, and the Department also employed directly three Public Health Nurses in different parts of the Province, and provided Sanitary Inspectors to cover the parts of the Province outside the Health Units and two major cities.

The Health Units formerly operated under the Public Health Act. At the session of the Legislative Assembly, a new Act was passed, the Health Unit Act, 1951, to provide for the establishment of Health Units.

It was decided to begin the programme by organizing new Health Units which would include the existing ones. The new units when they were ready took over from the existing ones which were then disestablished, and their assets and liabilities were transferred to the new units.

During the year the following new units were established:

Foothills	Alberta East Central
Mountain View	Leduc-Strathcona
Drumheller	Sturgeon
Red Deer	Minburn-Vermilion.

Minburn-Vermilion was a completely new unit while the others incorporated existing units. They had an average population of twenty-eight thousand. Two significant changes were made in the administration of the Health Unit under the new Act. The area served by a Health Unit was divided into wards, each ward provided one board member. The boards with one exception, were limited to five members. This replaced the former system in which each contributing authority supplied one or more members to the Board which often was of considerable size. The present small boards are proving very much more effective. The boards were made corporate bodies and each appointed its own Secretary-Treasurer.

The other big change was in the financial administration. Formerly financial administration of the Units was carried out by the Department of their behalf. The new Act provided for each unit to conduct its own financial administration. This has proved a much more satisfactory arrangement, and in view of the considerable expansion of the services has relieved the Department of a considerable amount of clerical work.

The units established during the year were organized from a territorial point of view in such a way that the intervening parts of the Province could be organized into suitable areas, and during the year in addition to establishing the units listed above, considerable ground work was carried out towards the establishment of further units, and arrangements were made for the establishment of the following units:

Medicine Hat	Stony Plain
Bow Valley	Athabasca
Vegreville	Grande Prairie.

The program of establishing new units has been carried on as fast as suitable groupings of Local Government Authorities requesting the service could be arranged.

The response of the Public was considerable, and applications for inclusion poured into the Department. It will probably be another year before all the areas which can satisfactorily be included in a Health Unit are so included. The Service has now become by far the most used health service in the Province. In view of the fact that the area and population to be served can be fixed at the most economical level and that the Provincial Government make a very substantial contribution to the service, it is probably the best value in health services that the public will ever have.

Division of Entomology

J. H. BROWN, B.Sc., M.Sc., F.A.P.H.A.

The following is the Eighth Annual Report of this Division, and a summary of the Fourteenth Annual Report of the Rocky Mountain spotted fever and Sylvatic Plague Survey, for the year ending December 31, 1951.

Introduction.

This Division deals with epidemiological problems associated with insect-borne diseases. Particular attention is paid to Spotted Fever, Sylvatic Plague, and Tularaemia, with considerable time being devoted to investigations relating to these diseases. Fly and mosquito control is becoming an important part of the work of the division as the newer insecticides and modern methods for application put control programs within the financial ability of most municipalities.

Fly Control.

An increasing number of requests are being received from Medical Officers of Health for assistance in the control of insect pests, particularly flies and mosquitoes. The fly problem has become quite important as there is considerable evidence that flies are involved in the transmission of poliomyelitis. During the early spring a Fly Control District embracing the city of Lethbridge and the towns and villages of MacLeod, Cardston, Magrath, Raymond, Stirling, Taber, Coaldale, Picture Butte and Barons was established with Dr. A. Somerville, Chairman, Alberta Health Survey Committee being instrumental in having a Hardie Power Sprayer supplied through the funds of the Dominion-Provincial Health Grants. The District was established under the Lethbridge Board of Health with participating bodies paying \$50.00 per day for the services provided which included the use of the machine, the operator, insecticide, pre- and post-treatment inspection, up-keep, etc. Each community had to supply the motive power to pull the machine while it was working within its boundaries.

Besides the communities within the District some 28 milk producers arranged to have their premises treated while the machine was in their neighborhood.

The financial operation of the campaign was successful and preliminary figures indicate that the cost will approximate six cents per capita. There were two treatments given—in May and in late August, and despite the very unseasonable weather an excellent control was achieved.

The results of the Fly Control District have aroused considerable interest in other areas and to date the High River, Drumheller and Red Deer Health Units have made application for similar control programs during 1952.

Information and assistance was also supplied to the local Medical Officer of Health in a number of villages and towns.

Mosquitoes.

It is now known that thirty-one species of mosquitoes are present in the province. Work was continued on mosquito control programs in various recreational areas with good results being achieved. During September the Director was granted leave of absence at the request of the Director General of Medical Services, and activated from the Supplementary Reserve and attached for three weeks to the Western Army Command for a survey of the mosquito and fly situation at various army establishments. A complete report was prepared and submitted to Col. E. J. Young, Medical Officer of the Command who intimated that it would be acted on during 1952.

Considerable progress was made on the study of mosquitoes in irrigated areas with a view of discovering the species present and the relationship of irrigation to their abundance. *Culex tarsalis*, an important vector of the virus of the encephalo-encephalomyelitis complex, was found to be present and from observations in progress it is evident that it constitutes an important part of the mosquito population. A preliminary survey indicates that the mosquito situation in the irrigated areas is directly related to the conditions existing in such areas, particularly in reference to poorly kept ditches and the misuse of water. In view of the fact that properly planned and constructed irrigation schemes will inhibit mosquito production a recommendation is being prepared in regard to the St. Mary and Milk Rivers Development.

It should be pointed out that unless proper precautions are taken stagnant water associated with power reservoirs, irrigation dams and irrigation ditches will eventually become breeding places for enormous numbers of mosquitoes.

Foodstuffs.

The inspection of insect infestation in foodstuffs continues, but through the co-operation of the Food and Drug Division of the Department of National Health, and the Division of Entomology of the Dominion Department of Agriculture, the Pest Act regulations in regard to the importation of foodstuffs have been enforced with a consequent decrease in the incidence of imported infestations.

Insect Collection.

Good progress has been made in arranging and determining the collection of native insects known to be incriminated in the transmission of various diseases.

1. Work continues on the Flea collection and it is now known that approximately 60 species, of which 11 are plague vectors are present in the province. The distribution of the plague carriers is being determined and should be completed in the near future.

2. The Tick collection numbers 9 species; three of which are important transmitters of Rocky Mountain spotted fever and Tularaemia both in nature and to man. The distribution of all species has been fairly well determined.

3. The Mite collection is becoming very large due to the difficulty in finding someone qualified to undertake the determinations. However, some progress is being made and some 400 specimens mounted on slides have been forwarded to Dr. H. H. Nesbitt, University of Ottawa, for determination. At present the number of known species stand at 4.

4. The Mallophaga, or feather lice, collection is being determined, with some 37 species known to be present in Alberta.

5. The Anoplura, or sucking louse, collection is still in the process of being arranged and only 8 species have been determined so far.

6. Work continued on the Chigger (Trombiculidae) collection and 5 species have now been recorded. The chiggers are incriminated in the transmission of Rickettsialpox and although the disease has not yet occurred here it is now known that both the house mouse, *Mus musculus* (which is the reservoir for the infection) and the chigger (which is the transmitter) are present at various points in Alberta.

Rocky Mountain Spotted Fever.

During the course of the spotted fever survey a total of 1,252 host and drag ticks were recovered in 60 collections. Of these 281 were host ticks taken from small wild animals, and 971 were taken by drag. The 281 host ticks were collected from 532 animals, of which 517 were shot and 15 trapped. As most of the investigation was carried on in new territory no spotted fever positives were found.

A total of 832 protective inoculations against Rocky Mountain spotted fever were made in the known infected areas. Of these 360 were made at Manyberries; 351 at Redcliff; 76 at Thelma-Elkwater; 16 at Medicine Hat; and 20 at Bow Island. The treatments were about equal as far as sex is concerned, with 364 females and 459 males being protected.

One case of spotted fever in Mrs. F. S., a 60 year-old female at Medicine Hat was recorded. This individual contracted her infection following a tick bite on a farm at Eastend, Saskatchewan. Investigation showed that a band of sheep had been purchased at Manyberries during the fall of 1950 and moved to the farm in question. As adult *Dermacentor andersoni* will remain on sheep it is assumed that infected ticks from the Manyberries district were the cause of the disease. After hospitalization she made a good recovery.

Plague.

During the course of the Sylvatic Plague survey 138 collections were made, consisting of 1,089 animals, of which 670 were shot, and 419 trapped. A total of 1,050 fleas and 28 tissue specimens were recovered and submitted to the laboratory for bacteriological examination. None of the material was positive for plague.

Tularaemia.

During the course of the 1950 survey 3 collections of ticks taken at Pendant De'Orielle, Foremost, and Lethbridge were positive for *Pasteurella tularensis* but were omitted from the 1950 report.

During 1951, in conjunction with the spotted fever and plague survey, the usual tularaemia work was carried on. No positives for *P. tularensis* were recovered.

The importance of tularaemia as a health problem is being increasingly recognized by physicians, with the result that a more precise diagnosis is now being made and the sources of infection established. The ramifications of tularaemia in nature in the province are now known to include such various and diverse sources as cats, field mice, gophers, grouse, gulls, mink, rabbits, sheep, skunk, swine and ticks.

Encephalomyelitis.

Work continues on investigating probable sources for this disease as well as on determining the distribution of the mosquitoes known to be capable of transmitting it. At present five species, *Aedes dorsalis*, *A. nigromaculis*, *A. vexans*, *Culex tarsalis* and *Culiseta inornata*, all efficient vectors of the virus, are known to occur in Alberta.

Educational Work.

The usual educational work in regard to the control of insect-borne diseases was carried on through the media of newspapers, radio, motion pictures and addresses. A number of lectures were given to the Medical Faculty, Faculty of Education, Home and School Associations and various organizations and groups.

Mycology.

The division continued to render service to Dr. E. Silver Keeping of the Provincial Laboratory, through the collecting of animal, particularly mice, tissue which was used to determine the incidence of *Haplosporangium* infection.

Publications.

During the year two papers were published—one in the Canadian Journal of Public Health.

1. "Rocky Mountain spotted fever in Alberta, 1935-1950", by M. R. Bow, M.D., and J. B. Brown, M.Sc. Canadian Journal of Public Health, March 1951.
2. Pamphlet on Tularaemia. J. H. Brown, M.Sc., Alberta Public Health Series No. 15.

General.

Assistance was rendered to the Alberta Liquor Commission in formulating plans for insect control particularly cockroaches in licensed hotels.

A considerable amount of time was devoted to the identification of agricultural insect pests submitted by the Department of Agriculture. Following the identifications, recommendations for control methods were forwarded to that Department.

The usual procedure of keeping the provincial, city, municipal and Liquor Commission sanitarians informed on the latest methods for control of pest insects was continued through the medium of formal and informal meetings, bulletins, correspondence, etc.

Preliminary investigations into the possible occurrence of mite-produced asthma in human beings was undertaken, and considerable information relative to the occurrence of asthma in persons working in dusty surroundings was compiled. Work elsewhere has shown that asthma in such people is often caused by two species of mites, both of which occur in Alberta.

The Department of Public Health and the University of Alberta were hosts to the Sixth International Northwestern Conference on Diseases in Nature Communicable to Man, held at Banff, August 27-29, 1951. The meetings were held at the Banff School of Fine Arts and over 80 delegates registered. Dr. M. R. Bow was President and the Director of this division was Secretary of the Conference.

Mr. John R. Higgin, 3rd year Zoology student, University of Alberta, was Officer-in-Charge of the Survey Crew during the

summer of 1951. Mr. W. S. Haynes, B.Sc. in Zoology, University of Alberta, assistant on the survey crew, collected and determined small mammals as part of the requirements for his M.Sc. degree. Excellent service was rendered as these men had a keen interest in the field work.

One adult male *Perognathus fasciatus fasciatus* Wied, Maximilian's pocket mouse, was taken by trap at Manyberries, Alberta, on the night of May 11, 1951. Apparently this is the first record of this mouse being taken in Alberta.

Cancer Services

V. W. WRIGHT, M.D., *Director of Diagnostic Clinics.*

I have the honour to submit the annual report of the Cancer Diagnostic Clinics *for the year 1951.*

Owing to exceedingly heavy registration in the Edmonton Cancer Clinic, the Government, through the Department of Health, decided that new quarters for the Clinic were absolutely necessary.

The old quarters recently occupied by the Obstetrical Departments of the University Hospital were obtained. Approximately \$40,000 was set aside for the renovation of this building and the Clinic moved in to the new quarters, 11250-84th Avenue, on December 24 th, 1951.

In order to have more time for each patient's examination it was decided to open the Edmonton Clinic five days a week, Monday to Friday, 9:00 to 12:00 noon.

NUMBER OF PATIENTS EXAMINED			
	New	Follow-up	Total
Edmonton	2,414	2,868	5,282
Calgary	1,548	1,676	3,224
Lethbridge	362	166	528
Totals	4,324	4,730	9,034

It will be noted that the total number of new cases is 4,324 compared with 4,179 in 1950; 3,516 in 1949; 3,220 in 1948; 2,916 in 1947; 2,258 in 1946; 1,794 in 1945; 1,726 in 1944; 1,670 in 1943; 1,186 in 1942 and 1,142 in 1941.

Of the 4,324 new cases 2,610 were found to be non-malignant and therefore did not require treatment under the Cancer Clinic.

Total number of cases referred to Hospital:

Edmonton	1,839
Calgary	775
Lethbridge	164
Total	2,778

Total number of cases referred for x-ray and radium therapy:

Edmonton	653
Calgary	403
Lethbridge	117
Total.....	1,172

The total number of cases referred for surgery:

Edmonton	624
Calgary	369
Lethbridge	51
Total.....	1,044

Following are the number of cases refferred for Diagnostic Procedures:

Exploratory Laparotomies:

Edmonton	153
Calgary	44
Lethbridge	9
Total.....	206

Brest and Small Biopsies:

Edmonton	674
Calgary	307
Lethbridge	104
Total.....	1,085

Diagnostic Curettages:

Edmonton	309
Calgary	32
Lethbridge	32
Total.....	373

Encephalograms and Ventriculograms:

Edmonton	34
Calgary	0
Lethbridge	0
Total.....	34

Bronchoscopy and Oesophagoscopy

Examinations:

Edmonton	124
Calgary	41
Lethbridge	6
Total.....	171

Sigmoidoscopy Examinations:

Edmonton	182
Calgary	0
Lethbridge	9
Total.....	191

Cystoscopic Examinations:

Edmonton	186
Calgary	33
Lethbridge	1
Total	220

Diagnostic Investigations, Consultations:

Edmonton	135
Calgary	23
Lethbridge	3
Total	161

Biochemistry, Blood Counts, Gastric
Analysis, etc.:

Edmonton	313
Calgary (The Calgary Clinic has its own Lab. facilities).....	....
Lethbridge	11
Total.....	324

X-ray Examinations:

Edmonton	1,470
Calgary	606
Lethbridge	115
Total	2,191

Since the opening of the Clinics in 1941 the total number of cases examined is 51,819.

Cerebral Palsy Clinics

DR. F. G. DAY, *Director, Cerebral Palsy Clinic.*

While awaiting the erection of the Government clinic building and realizing the inadequacy of the Kingsway Legion Hall location, near the commencement of this year we moved to new temporary quarters on 105th Street, providing much improved facilities. These quarters are well lighted and warm, though the space rapidly proved very limited. However, we have maintained the clinic throughout the entire year, functioning at this new location, in anticipation of the new clinic building soon to be provided. The permanent building should be ready early in 1952.

Equipment.

The original list of equipment has now been completely purchased and while some of it is in use, the balance is stored ready for use as soon as the main building becomes available. It provides for everything that will be required in the immediate future in each of the several departments, and has been supplemented by some few items which we did not anticipate that we would require. Consequently, as far as the equipment is concerned, we are prepared to swing into a full scale programme as soon as we have space in which this equipment can be used.

Staff.

The staff now consists of a secretary and our original Occupational Therapist. Unfortunately, our Physiotherapist left in the Spring of this year but has been replaced by an equally well trained one also from England. We have added a ward aid, who assists both the above departments in transporting and looking after the children. We have recently obtained a well trained bracemaker who has set his equipment up in the space provided by the Government in the old Parliament Building, and is making braces there at the present time. This very essential part of the whole programme has enabled us to make very gratifying strides with the cases that have been fitted at this date. We find, however, that we have a tremendous backlog of patients requiring braces and anticipate that it will be at least a year before we are anywhere near being caught up. A Speech Therapist, who is both well qualified and well recommended, has just arrived from England. A School Teacher, who first qualified as a general teacher and then specialized in teaching handicapped children has been contacted in London, England, and will be available in March 1952. It is interesting to note that in these last three employees there are two "firsts", since they constitute the first therapist, and the first school teacher specializing in handicapped children to be made available in the Province of Alberta.

Clinics.

In the past year we have continued to hold examining clinics weekly. However, since we found that the Saturday morning clinics were not sufficient, we have also instituted a second clinic on

Wednesday mornings, when we see new patients only, make our diagnosis and recommend treatment. To date we have seen 170 cases, which were diagnosed as follows:

Cerebral palsy	112	Mongoliod	5
Amyotonia congenita	4	Muscular dystrophy	3
Mentally deficient	6	Spina bifida	3
Microcephalic	2	Miscellaneous	35

We tried to send the non cerebral palsy cases to the appropriate places for treatment.

On alternate Wednesday mornings, we have a follow-up clinic, so that we see every case being treated at the clinic at least once every three months, to make definite notations as to progress and further recommendations. We have done one research programme on a new drug Prenderol, for Squibbs Company, who supplied the drug free of charge, and we used it on 20 cerebral palsy cases to try and determine whether it was of sufficient use to be put on the open market.

The clinic functions during the remainder of the week. We have an average of 15 patients a day who attend the clinic for treatment and usually run a period of three months in the clinic, followed by three months at home. During the year we have treated 32 cases altogether, and to augment the treatment, the clinic, in July of this year, provided a three-day course given at the University, for the parents and relatives of the cerebral palsy children, so they would be better prepared to carry on the treatment of their child at home. This was exceedingly well attended and we tried to give them adequate lectures on home treatment in each of the different departments, plus lectures on cerebral palsy generally, from both the orthopaedic and pediatric side of medicine. It is my belief that these were well received.

Building.

The Government is well along with the building they are providing for the use of the programme in Edmonton. It is located between 115th and 116th Street, and 73rd and 74th Avenue, on the South Side. It is a one storey building, with a finished basement. The basement will contain a brace shop, a staff room, and a storage room, whereas the first floor will consist of a director's and receptionist's office, a class room, a clinic room which will double as a speech room, a physiotherapy room, and an occupational therapy room. At the present rate of construction I feel this building will be ready for our occupancy before the end of January.

Calgary.

In response to persistent demands from Calgary, in July of this year the Government saw fit to provide Calgary with the necessary employees to commence a clinic there to start the programme functioning. Consequently, they obtained the services of a stenoreceptionist and an occupational therapist. Since that time they have been collecting cases and starting their records, as well as performing occupational therapy on those children around Calgary who most require it. They are now treating approximately 7 patients a day in quarters provided by the Calgary Cerebral Palsy Association, and, in some cases, actually in the home. The programme is, of necessity, closely aligned with the Red Cross Hospital, which has been doing a goodly percentage of this work in the past. We hope to use this present Calgary programme very much as we

used the Edmonton one initially, to collect the cases, to find out how many and what type they are, so that we may better know exactly what we will require in Calgary when the Government intensifies their programme with further employees and perhaps a building.

After considerable research it is my estimation that there are very close to 500, if not more than 500 cases of cerebral palsy in the Province of Alberta who are under the age of 15, and that approximately two-thirds of these could be very definitely benefitted by treatment. Since we will be able to treat not more than 30 in the Edmonton clinic, and approximately the same number in Calgary at a later date, it would appear that our facilities are very inadequate. However, on the basis of the birth rate in this province at the present time, the number of new cases should not exceed 50 per year and consequently, although we will be unable to cope with them all at the present time, I believe that our facilities are probably adequate and we will certainly not end up with a programme too large for our province in the future.

I have seen great improvement in many of the cases that have been treated during the past year. No case has been discharged as cured, but on the other hand, no case has been maintained persistently at the clinic which has not shown a definite improvement.

Health Education

C. C. Evoy, B.Sc., *Director.*

Health Education is designed to stimulate a desire in the layman to achieve perfect health on a personal, community and national level. Once a desire for health knowledge has been awakened there must be the means available, for satisfying that desire and promoting further interest. This is achieved through the usual publicity media, films, literature, lectures and radio.

HEALTH EDUCATION MEDIA

Tours.

The first and most important of these media is personal contact which is made through tours of Schools Divisions, Health Units and Municipal Nursing Districts by the health educator. In 1951 such tours were arranged through the offices of the Brooks, Strathmore, and Two Hills Health Units, and the municipal nurses at Smith, Slave Lake, Bonanza, Dixonville, Valley View, Breynat, Plamondon, Grassland and Peers. In addition a three week tour was made of schools in the Municipal Nursing Districts of Bow Island, Milk River, Warner and Vauxhall.

In conjunction with the above mentioned three week tour in the south of the province, talks explaining the services of a health unit were given at a number of centres in the Medicine Hat area. Subsequent resolutions from these and other districts to the Minister of Health have resulted in the formation of the Medicine Hat Health Unit.

Audio-Visual—Films and Filmstrips.

Films and discussion follow a wide range of subjects depending on the audience. Rural Sanitation and Hot School Lunches are popular, naturally, but all other phases of health education are welcome. The very best and newest of films and discussion material is prepared for these tours which often include programs to fit in the school curriculum, lectures to adult audiences, and discussion with councilmen and ratepayers on subjects requested by other divisions.

The Health film library is in a state of expansion at present in regard to both the physical number of films and the usage these films receive.

An indication of the popularity of this service is seen in the total bookings for the year which reached 1,327 in 1951. Bookings average a week's duration, including shipping time. It has been noticed that certain films, because of topical or seasonal interest cannot meet the heavy demand made upon them. It has therefore become policy to fill in with second and third prints on these already established favorites, while choosing carefully any new titles to be introduced. Even so the library in 1951 was extended by the addition of 38 sound films, many of them in color, and 9 silent films bringing the library up to a total of 218 films. Nine filmstrips have been added during the year, the total of these now being sixty-nine.

Taking all factors into consideration it is estimated that the films reached in 1951 a probable audience of 72,500 people.

Workshop.

Health Education Workshops for teachers are also proving valuable and interesting. In the fall of this year the assistant deputy minister, a representative each of the sanitary engineering division and the guidance clinic as well as the health educator held a one day workshop with 40 teachers in the Stony Plain school division.

The workshop opened with a filmstrip on the services of the department. Activity then moved into the field of mental health with an informal discussion on the need for guidance in the school program. At the afternoon session a lecture on a new drug generated a very high interest level. Finally examples of problems confronting the sanitary inspector in school and community sanitation were described and solutions offered. Spirited discussion followed each topic. This method of presenting public health education was approved by the representatives of the Department of Public Health as well as by the teachers and the school superintendent as being most effective and one to which more attention could be devoted in the future.

Lectures.

Talks and lectures, accompanied by films and discussion were given by the health educator at conferences, conventions, Home and School Association meetings, luncheons, church groups, young people's and public meetings to a total of 2,000 for 27 appearances. Other appeals which could not be filled by the health educator were passed to the local health authority. In still other cases literature from the reference files in the Health Education Division was loaned to speakers seeking background information and historical data.

This division lent assistance to all other divisions in the Department in the incidental arrangement and detail necessary to a co-ordinated display at the Edmonton Exhibition. Free health films were again shown and attendance was very good.

Literature.

It became necessary to have an up to date pamphlet on the services of the Department of Health. Material for this was assembled from each of the divisions and work on this project was begun during this year. The pamphlet, entitled, "Your Health Services" will be published and ready for general distribution early in 1952. A new Health Education Services catalogue is in the course of preparation for release in 1952.

Mimeograph leaflets were kept up to date, by revision, while some new booklets came on the market and were added to our stock. This literature is distributed free of charge on request to schools, hospitals, the education department of the University of Alberta, Health Units, Well Baby Centres, Home and School Associations, factories and industrial organizations, and individuals, to a grand total of well over 100,000 pieces.

Equipment.

It was thought that much of the work of the Department of Public Health with which this division is familiar, especially that contacted during tours should be recorded for historical reference and with

that in mind a camera was bought for the division and a start made on this type of work.

A new 35mm filmstrip projector was added to the equipment in this division. This machine has many advantages over the type it replaced, chief among these being a built-in fan which gives it the ability to operate continuously without distortion of the image.

Nutrition Services

ELVA M. PERDUE, B.Sc. (H.Ec.).

The purpose of the Nutrition Service is the improvement of the health and well-being of every family in Alberta by practical application of the basic principles of normal nutrition.

With awareness of the distance and the difficulties involved we have directed our efforts toward accomplishing this, by the following activities:

Local Health Services.

Conferences were held with the local public health personnel to find out what the nutrition needs are, what is being done to meet the needs and how the nutritionist may best aid in the organization and technique of the nutrition service being rendered.

Consultant service was available to the public health nurses relative to difficult family nutrition problems such as—budgets, everyday meal planning, marketing service, eating habits, food fads, poor eating habits and special diets.

Mimeographed nutrition materials as practical, attractive and up-to-date as possible were prepared for the nurses. Sample copies of all materials available for local distribution were compiled in reference files and distributed with recommendations to the public health nurses in the field.

Assistance was given to public health nurses by talks and demonstrations to school and adult groups, and by accompanying them on a limited number of home visits. Exhibits and nutrition materials for pre-natal, well-baby, and pre-school clinics were made available.

Individual conferences were held with the nurses visited to discuss specific nutritional problems in their respective areas. These discussions provided an opportunity for the nurses to bring their knowledge of nutrition up-to-date and to translate it into the everyday practices of the people with whom they work. Nutrition News continued to be distributed to the nurses to keep them posted in the trends of the science of Nutrition.

Since the public health nurses from many areas have asked for direction in advising families on low-cost meal planning, the nutritionist spoke on "Low Cost Meal Planning" to the Public Health Nurses Section at the convention of the Alberta Association of Registered Nurses.

School Nutrition Service to Teachers.

There were mimeographed materials prepared on such topics as classroom nutrition teaching, school lunches brought from home and the organization and operation of school lunch programs. Opportunities offered by the school lunch program for nutrition teaching were outlined with the teachers during visits to the schools.

When requested, school lunchrooms were visited and suggestions and recommendations were made by the nutritionist.

Food models, publications, posters, films and filmstrips were made available to teachers. Reliable sources of other teaching materials were distributed to the schools.

Parent Education in Nutrition.

During the year numerous groups and organizations called upon the Nutrition Division for assistance with programs. Among these were: Home and School Association, Canadian Consumer Association, church groups and community clubs. Attendance at Well-Baby Clinics and the home visits with the public health nurses afforded valuable opportunities for a limited amount of individual nutrition teaching.

Municipal Hospitals.

Assistance was given to the small hospitals in developing and planning meals. The monthly mimeographed release, Institutional Supper Menus, was again prepared and distributed to the small hospitals and school dormitories. The publication was also used by camp cooks and other groups catering to a small number of people.

Suitable recipe books were loaned to hospital personnel. Requests relative to the various phases of food service, including food selection, preparation, and the purchasing, care and servicing of kitchen equipment were received and answered.

Assistance with the planning and preparation of special diets using foods obtainable locally was given to doctors and hospitals on request.

Preparation and Distribution of Materials.

The regular mimeographed releases prepared and distributed during the year were: 12 editions of Institutional Supper Menus and one supplement; 6 editions of Nutrition News.

Mimeographed leaflets prepared for special programs include: Breakfast, Lunch Boxes, Menus Plans, and Classroom Projects in Nutrition.

Nutrition publications from numerous sources were distributed free of charge to doctors, dentists, nurses, teachers, school children and to the general public.

Co-operation with Other Agencies.

It is the policy of the nutritionist to become familiar with the work of the other agencies in the province in the field of nutrition and to give assistance to the public health nurses in co-ordinating their nutritional activities with the agencies engaged in similar work.

Lectures were given at two Home Nursing Courses and reference materials were loaned to instructors preparing the lectures for classes conducted in small towns.

Suitable nutrition films and reference materials were made available on loan to study groups in the province.

Other Activities.

The industrial nurses in the province received copies of the materials distributed from this office. Assistance with nutrition programs was given to these nurses.

A large number of inquiries relative to food problems were received from individuals and dealt with.

The objectives and activities of the Nutrition Services have been discussed with groups of students, including nurses-in-training and the public health nurses at the University.

In July an exhibit was prepared for the Edmonton Exhibition. In this way many people were contacted and informed of our service. The nutrition displays were loaned to interested groups—the health units, schools, community groups and the Edmonton Milk Foundation.

In September the nutritionist attended the meeting of the Dominion-Provincial Nutrition Committee in Ottawa.

The number of camp leaders given assistance with planning of adequate camp meals was extended. Information on camp facilities and equipment, camp sanitation and quantity food service is contained in the Camp Feeding Manual which is distributed from this office.

Public Health Nursing Division

M. M. FITZSIMMONS, P.H.N., *Acting Director.*

The year 1951 brought many changes in the Public Health Nursing Division, with continual reorganization under the Municipal Nursing Service Act, passed in January 1950. The total number of municipal nursing services operating are thirty-seven; three Well Baby Clinic centres; eight One Nurse Health Units, and reports were received from one nurse in a Metis Colony.

In April, Miss Blanche Emerson, who had so ably assisted in the nursing office for the past two and a half years when the shortage of nurses was so acute, retired, and was replaced by Mrs. Dorothy Kaufman McPhail as Acting Assistant Director.

Five permanent staff appointments and nine new appointments were made for district posts and two for the One-Nurse Health Units. There were seven resignations. Five of the nurses resigned to be married, one to take postgraduate work, and one for personal reasons. The nurse from the Olds School of Agriculture transferred to the Nursing Division for summer relief work. One nurse was on a leave of absence to take the postgraduate course in Public Health at the University of Toronto.

Miss Marion Lavell, who had been in charge of the Well Baby Clinic in Calgary for many years, retired from the Provincial staff. The City of Calgary took over the Clinic and continued Miss Lavell's services.

The course in practical advanced obstetrics at the University of Alberta was not given as there was not a sufficient number of applicants.

Rural Districts:—Alder Flats, Blueberry Mountain, Bonanza, Bow Island, Breton, Breynat, Craigmyle, Dixonville, Fawcett, Foremost, Fort Assiniboine, Grassland, Hemaruka, Hilda, Hines Creek, Kinuso, Lindale, Lomond, MacKay, Milk River, New Brigden, Peers, Plamondon, Slave Lake, Smith, Sunnynook, Tangent, Tulliby Lake, Valley View, Vauxhall, Wanham, Warner, Whitecourt, Whitemud Creek, Winfield, Worsely, Youngtown.

Regular clinics held in connection with the above centres were:—Minnihik operated from *Alder Flats*; Bay Tree and Cherry Point operated from *Bonanza*; Burdett, Conquerville, The Gas Co., and Whitla, from *Bow Island*; Flatbush and Jarvie, operated from *Fawcett*; Etzikom, Hoping School, Orion and Manyberries from *Foremost*; Timeu operated from *Fort Assiniboine*; Boyle operated from *Grassland*; Schuler operated from *Hilda*; Coutts operated from *Milk River*; Haddock and Shining Bank, operated from *Peers*; Canyon Creek and Widewater, operated from *Slave Lake*; Chisholm operator from *Smith*; Faust operated from *Kinuso*; Eaglesham and Watino, operated from *Tangent*; Belloy, operated from *Wanham*; New Dayton and Wrentham, operated from *Warner*; Blue Ridge, operated from *Whitecourt*.

The administration of the six nursing services in organized Municipalities located at Bow Island, Foremost, Grassland, Milk

River, Tulliby Lake and Warner, was taken over by the respective Municipal Councils, but these districts are still supervised by the Public Health Nursing Division.

All of the districts are now referred to as "The Municipal Nursing Service" as described by the new Act, whether in organized or unorganized territory.

Districts were opened at Slave Lake and Winfield on January 1st, and September 1st, respectively. On October 1st, Wanham, which had formerly been administered by the Grande Prairie Municipal Hospital was organized and the local committee was re-organized as required under the provisions of the Municipal Nursing Service Act. Each of these three new districts has a heavy program.

The boundaries of Sunnynook, Youngstown and New Brigden were extended to cover all of the Special Areas Nos. 2 and 3, and arrangements were made to supply cars to the nurses so that they may be able to efficiently serve the larger areas.

Two part time services at Craigmyle and Hemaruka were discontinued. The district of MacKay which had been vacant for a year was closed, as there was not sufficient work to warrant a full time service.

In the many routine emergency treatments, in instruction in Home Nursing and First Aid and in their preventive program, municipal nurses make a great contribution to the people of the communities they serve.

**See Appendix No. 1 for Statistics.*

Well Baby Clinic Centres.

Well Baby Clinics centres are located at the following points: Calgary, Medicine Hat, Vegreville. These Clinics all had a very busy year. As mentioned before, Miss Lavell was taken on the staff of the Calgary City Health Department the first part of October. A part time service at Bowness was incorporated in the Mountain View Health Unit in October.

Although called Well Baby Centres, the nurses in Medicine Hat and Vegreville respectively, do a generalized program in the surrounding areas, as they are the only Public Health Nurses in these districts with the exception of the school nurses in the City of Medicine Hat.

**See Appendix No. 2 for Statistics.*

Re School Work and Immunizations completed in: 31 Municipal Nursing Services in L.I.D.'s; 6 Municipal Nursing Services in M.D.'s; 1 Metis Colony.

**See Appendix No. 3 for Statistics.*

One-Nurse Health Units.

Supervision is given to the One-Nurse Health Units including the following: Athabasca Health Unit at Colinton; Brooks Health Unit at Brooks; MacLeod-Pincher Creek Health Unit at Granum; Pembina Health Unit at Barrhead; Rocky Mountain Health Unit at Rocky Mountain House; Spirit River Health Unit at Spirit River; Wainwright Health Unit at Wainwright; Wheatland Health Unit at Strathmore.

These nurses are employed by the School Division with 50% of their salary paid by the Department of Public Health. They are responsible for the inspection of the school children, and carry on a generalized program in the community.

These One-Nurse Health Units are gradually being reorganized into Full Time Health Units according to the Health Unit Act passed in April 1951. Rocky Mountain Health Unit was taken into the Red Deer Health Unit in October. The Pembina Health Unit service was discontinued at the same time. The nurse at Brooks resigned in July and no one was obtained to replace her for the remainder of the term.

**See Appendix No. 4 for Statistics.*

Staff Education.

New staff members were given routine orientation in the office in regard to policy and records, followed by a few days with a senior nurse in a district, before being sent to their districts.

There is an ever increasing need for public health service. The nurses have more opportunity to offer public health teaching with improved roads and better facilities for travel. Postgraduate work in Public Health is continually being urged. Nurses who have not taken the Public Health Course are given a longer orientation period to observe some of the public health services.

The Spring Conference was held as usual at the St. John Ambulance House, and all the staff with the exception of one, attended. Lectures on Newer Trends of Medicine were heard from: Dr. N. Baster; Dr. Floyd B. Rodman; Dr. R. E. Marshall; Dr. Donald Wilson; Dr. G. S. Long; Dr. H. H. Stephens; Dr. F. Day; Dr. Harold Orr; Dr. R. D. Stuart; Mr. W. E. Milton; Mrs. W. Norquay; Miss Marion Murray.

The Quarterly News Letter containing information on newer drugs and treatment, and concerning various staff regulations, was sent out to all staff members.

Supervision.

At least one visit and more when time permitted, was made to each district. Many local problems facing the nurse at this time as well as their office routine records and their programs were discussed. Where possible a clinic or school visit was made with the nurse.

We feel that the nurses could be assisted in many ways in the service that is offered, if more field visits could be made.

A meeting of the Nurse's Home Committee is held in each district on the occasion of these visits, in order to discuss their responsibilities and problems.

Each nurse sends in a monthly report of the work done in her district.

Miscellaneous.

This year brings to a conclusion the drawing up of Contracts according to the Municipal Nursing Service Act of 1950. Most of the household equipment formerly owned by the local Committee has been taken over or replaced jointly by the Department of Public Health and the municipalities.

As mentioned before, the administration of the nursing service in organized territory was taken over by the various municipalities concerned. The Nursing Division has worked with the Director of Health Units in drafting uniform health records for use in all public health agencies in the Province, with a view to the uniformity of such records.

Lectures were given and the film "District Nurse", was shown to the senior nurses at three city hospitals and to the public health nursing students at the University.

A lecture on Public Health Nursing in Alberta was given and the film "District Nurse" was shown to six groups of fourth year medical students.

An evening refresher Course consisting of eight lectures held in February at the University on "Modern Trends in Nursing", was attended by the Director and Assistant Director.

In November a team of five from Ottawa gave a four-day Course on "The Nursing Aspects of ABC Warfare", which was attended by the Assistant Director.

The Annual Meeting of the A.A.R.N., in Banff and the Public Health Convention in Edmonton were attended by the Director and Assistant Director.

The Banff-Canmore Chapter of the A.A.R.N., started a voluntary Well Baby Clinic in Banff, and the Director attended a meeting to discuss this project. This clinic held with the cooperation of the local doctors has had an excellent attendance.

I would like to extend our thanks to those who have assisted us in our work and have helped us to solve our many problems. Our thanks go to the Hon. Dr. W. W. Cross, Minister of Health; Dr. M. R. Bow, Deputy Minister; the Department of Municipal Affairs, to the City Agencies, also to the various organized Municipalities, all the other Divisions of the Department of Public Health, and other Provincial and National Organizations.

I also wish to thank the medical profession, hospitals and teachers who have assisted the nursing staff in their work; and the nursing staff who have made it possible for our programme to be carried out in the rural areas of Alberta, and who continue to serve beyond the call of duty.

TABLE 1
REPORT OF MUNICIPAL NURSING CENTRES (EXCLUSIVE OF WORK
DONE IN SCHOOLS.)

Treatment Consultations	29,124
Miscellaneous P. H. Consultations	9,947
Antepartum Consultations	1,683
Postpartum Consultations	453
Infant and Pre-school Consultations	5,274
Treatment Home Visits	7,015
Miscellaneous P.H. Home Visits	1,891
Communicable Disease Home Visits	1,475
Maternal Welfare Home Visits	495
Infant and Pre-school P.H. Home Visits	976
Deliveries	80
Abortions	41
Cases sent to Hospital or Doctor	1,603
Deaths Over 1 year	33
Deaths Under 1 year	8
Total No. Doses different Sera	12,371
Cases Communicable Diseases Reported	1,855
Pieces P.H. Literature Distributed	6,196
IMMUNIZATION WORK DONE AT OFFICE OR CLINICS:	
Measles Prophylactic	46
Diphtheria Toxoid	4,920
Scarlet Fever Toxin	645
Smallpox Vaccine	1,408
Whooping Cough Vaccine	5,068
Typhoid Fever Vaccine	32
Tetanus Vaccine	11
Rocky Mountain Spotted Fever	46
Patch Tests	207
Total	12,383
MISCELLANEOUS:	
Old Age Pensioners (treated free)	684
Lectures and Demonstrations to "Teen agers"	17
Prenatal Classes	12

TABLE 2
REPORT OF WELL BABY CLINICS

	Calgary (Jan.-Sept.)	Medicine Hat (Redcliff)	Vegreville
WELL BABY CLINICS:			
No. in Attendance	6,402	1,943	393
No. Cases Admitted	1,474	404	....
Out of Town Cases	108	265	....
Referred to Family Doctor	15	94	....
No. Discharged	9	45	....
No. Cases on Roll	2,899	709	207
Transferred to Pre-school Clinic	1,390	448	....
Breast Fed	1,877	440	71
Bottle Fed	3,122	676	232
Other Feeding	2,164	697	89
PRE-SCHOOL CLINICS:			
No. in Attendance	2,477	649	1
New Cases Admitted	583	55	....
Old Cases Re-admitted	6	2	....
Out of Town Cases	22	90	....
Discharged	1,761	522	....
Referred to Family Doctor	12	44	....
No. Cases on Roll	6,804	2,073	17
VISITS:			
Baby Visits	3,704	17	36
Pre-school Visits	2,484	24	41
Pre-Natal Visits	12	....	3
Special Visits	56	69	....
Interviews .....	....	127	....
'Phone Calls .....	....	698	....
Literature Distributed .....	....	213	....
Letters Written re Work	8,685	993	22
Total No. of Visits	6,256	117	103
ATTENDANCE:			
No. Clinics Held	172	146	43
Total No. in Attendance	8,879	2,492	394
Total No. Seen by Doctor	2,203	70	....
IMMUNIZATION:			
Diphtheria Toxoid .....	....	51	....
Whooping Cough Vaccine .....	....	28	....
Typhoid Fever Vaccine .....	....	20	....
Diphtheria and Pertussis Combined .....	....	1,512	....
Smallpox Vaccine .....	....	346	....
Tetanus .....	....	18	....
Cholera .....	....	4	....
Anti Measles Prophylactic .....	....	1	....
Rocky Mountain Spotted Fever .....	....	192	....
Tuberculin and Patch Tests .....	....	356	....
Schick Tests .....	....	8	....
Dick Tests .....	....	11	....
V.D. Clinics .....	....	44	....
Assisted at Guidance Clinics .....	....	8	....
Rocky Mountain Spotted Fever Immuniz- ation Clinics .....	....	8	....
Lectures .....	....	16	....

TABLE 3

SCHOOL WORK--DIVISION OF PUBLIC HEALTH NURSING

(Including work done by both Municipal Nurses and Child Welfare Clinic Staffs)

	Total
1. Visits to Schools	424
2. Individual Inspections	6,859
3. With Suspected Defects	4,172
(a) Defective Vision	1,108
(b) Defective Hearing	190
(c) Diseased Tonsils	1,579
(d) Unsound Teeth	2,655
(e) Eye Diseases	48
(f) Ear Diseases	76
(g) Enlarged Cervical Glands	645
(h) Enlarged Thyroid Glands	95
(i) Malnutrition	588
(j) Nervous Disorders	135
(k) Orthopaedic Defects	8
(l) Faulty Posture	380
(m) Ringworm	11
(n) Impetigo	27
(o) Scabies	33
(p) Pediculosis	163
(q) Other Skin Conditions	74
(r) No. Exclusions (Suspected Com. Disease)	49
4. Correction of Defects	781
5. Classroom Talks	155
6. Sanitary Inspection of Schools	307
7. Consultations with Teachers	314
8. Consultations with Parents	364
9. School Follow-up Home Visits	210
Total No. Doses of the Following:	
Diphtheria Toxoid	1,428
Scarlet Fever Toxin	345
Smallpox Vaccine	1,020
Whooping Cough Vaccine	643
Typhoid Fever Vaccine	350
Whooping Cough and Diphtheria Comb.....	96
Mantoux and Patch Tests	313
No. of Nursing Services Reported:	
Municipal Nursing Services in L.I.D.'s.	31
Municipal Nursing Services in M.D.'s	6
Metis Colony	1

TABLE 4
SERVICES GIVEN BY HEALTH DISTRICTS

Services Offered	Athabasca	Brooks	MacLeod-Pincher Ck.	Pembina	Rocky Mtn. House.	Spirit River	Wainwright	Wheatland	Total
SCHOOL HEALTH PROGRAMME:									
1. No. of Visits to Schools	118	50	166	117	26	78	100	111	796
2. No. Students Inspected	1,096	502	913	1,412	157	1,303	1,328	1,090	7,801
3. No. with Suspected Defects	532	243	268	.....	32	765	473	562	2,875
(a) Defective Vision	520	73	153	208	7	721	212	95	1,248
(b) Defective Hearing	64	.....	18	16	.....	6	.....	4	128
(c) Diseased Tonsils	453	54	152	299	29	236	267	150	1,644
(d) Unsound Teeth	637	136	346	400	64	583	134	344	2,639
(e) Eye Diseases	33	.....	3	5	1	1	1	.....	44
(f) Ear Diseases	35	2	.....	.....	.....	.....	2	.....	39
(g) Enlarged Cervical Glands	183	20	72	241	1	204	35	.....	756
(h) Enlarged Thyroid Glands	40	.....	2	12	.....	10	.....	.....	64
(i) Malnutrition	116	.....	14	25	.....	36	64	168	423
(j) Nervous Disorders	139	.....	2	22	.....	78	.....	6	237
(k) Faulty Posture	133	37	.....	23	.....	25	.....	.....	218
(l) Orthopaedic Defects	19	.....	.....	3	.....	10	2	5	39
(m) Ringworm	4	.....	2	.....	.....	4	12	.....	22
(n) Impetigo	10	.....	4	.....	.....	34	5	.....	53
(o) Scabies	2	.....	4	17	.....	27	3	.....	43
(p) Pediculosis .....	.....	97	10	.....	.....	5	7	.....	119
(q) Other Skin Conditions	89	.....	16	.....	1	27	5	27	165
(r) No. exclusions, Suspected Communicable Disease	28	.....	21	60	.....	8	3	.....	120
4. No. Correction of Defects	248	343	.....	46	.....	318	162	.....	1,117
5. Classroom Talks	48	44	9	69	.....	15	39	.....	224
6. Sanitary Inspection of Schools	23	7	43	.....	.....	16	57	.....	146
7. No Consultations with Teachers	108	49	214	62	6	64	155	97	755
8. No. Consultations with Parents	50	22	.....	.....	.....	152	165	45	414
9. No. School follow-up Home Visits	92	15	29	33	1	81	49	76	376
10. No. Pre-school Children Seen at School	27	9	.....	163	.....	7	23	.....	229
CLINICS:									
1. Child Welfare Clinics Held	50	41	73	30	36	70	48	106	454
Attendance: (a) Infants	285	443	782	116	195	245	648	1,796	3,510
(b) Pre-schools	139	332	567	283	247	264	486	346	2,664
2. Pre-natal Home Visits	10	7	20	.....	.....	5	29	.....	71
3. Infant Welfare Visits	69	13	38	.....	5	94	91	.....	198
4. Pre-school Home Visits	62	7	6	7	5	17	4	.....	108
5. Tuberculosis Clinics Held .....	.....	2	.....	1	.....	3	3	.....	9
Attendance	4	6	.....	12	.....	23	.....	.....	45
6. Tuberculosis Home Visits	56	8	26	2	.....	5	11	.....	108
7. Mental Hygiene Home Visits	22	2	41	9	3	30	37	.....	144
IMMUNIZATION:									
1. Total No. of Doses of the following									
(a) Diphtheria Toxin	111	263	12	50	71	138	186	97	928
(b) Scarlet Fever Toxin .....	.....	.....	21	17	81	5	73	877	1,074
(c) Smallpox Vaccine	112	298	346	131	55	356	269	275	1,842
(d) Whooping Cough Vaccine	68	2	.....	.....	2	.....	69	55	196
(e) Typhoid Fever Vaccine .....	.....	21	2,062	.....	.....	590	.....	.....	3,673
(f) Whooping Cough Vaccine and Diphtheria Toxoid	761	404	724	569	241	439	730	576	4,444
2. Mantoux Tests and Patch Tests	349	5	29	9	.....	12	100	37	641
3. Schick Tests .....	.....	1	.....	.....	.....	.....	21	.....	22
4. Triple Vaccine	14	8	3	.....	.....	12	.....	.....	37
COMMUNICABLE DISEASE CONTROL:									
1. Visits to Cases, Contacts and Suspects	161	48	71	24	36	51	88	.....	479
2. No. cases Quarantined or Isolated	169	166	22	.....	.....	74	95	.....	526
(a) Scarlet Fever	1	32	12	27	10	.....	58	72	212
(b) Measles	12	.....	25	11	1	2	43	80	174
(c) Chickenpox	28	10	75	.....	.....	61	8	11	193
(d) Mumps	124	14	33	23	5	10	9	19	237
(e) Whooping Cough	18	.....	4	41	.....	.....	3	23	89
(f) Rubella	19	110	.....	1	5	3	1	.....	139
(g) Skin Conditions	6	.....	.....	.....	.....	4	4	.....	14
(h) Other Conditions	11	1	.....	.....	.....	3	.....	.....	15
3. Contacts Isolated .....	.....	.....	.....	.....	29	8	69	.....	106
4. No. Throat Cultures Taken .....	.....	.....	.....	.....	.....	.....	48	.....	48
HEALTH EDUCATION:									
1. Interviews	74	69	893	.....	50	151	13	.....	1,250
2. No. Lectures	9	15	2	.....	.....	3	12	26	67
Attendance	685	207	65	.....	.....	280	238	.....	1,475
3. Literature Distributed, (approximately)	996	1,375	275	.....	.....	1,200	254	1,000	5,100
4. Films Shown	9	33	14	17	.....	5	18	16	117
5. Newspaper Publicity .....	.....	46	83	.....	3	2	1	.....	135
6. School Health Papers Published .....	.....	.....	.....	.....	.....	.....	1	.....	1
7. No. Letters and Circulars	1,952	190	1,598	.....	42	450	.....	.....	4,232
Water Samples Submitted .....	.....	.....	.....	.....	.....	.....	.....	.....	18
First Aid .....	.....	.....	.....	.....	.....	.....	.....	.....	59
Home Visits re Illness .....	.....	.....	.....	.....	.....	.....	.....	.....	279

Division of Social Hygiene

HAROLD ORR, O.B.E., M.D., D.P.H., F.R.C.P. (C), F.A.C.P., *Director*.

I have the honor to present the thirty-second Annual Report of the Division of Social Hygiene.

This Division continues to operate clinics in Edmonton, Calgary, Lethbridge, Medicine Hat and McLennan. The consultation service provided for private physicians is well patronized. Our Mobile Clinic spent considerable time during the summer months doing serologic surveys in the northeastern part of the Province, and treating "on the spot" those persons found infected with venereal disease. In this work we have been helped by fine co-operation from the Indian Health Services.

Drugs were supplied, as in previous years, free of charge for the treatment of venereally diseased patients, on request by their private physicians. Penicillin and bismuth preparations are the drugs most commonly used and supplied by this Division. Arsenic is being used less and less as time goes on. Penicillin and Bismuth give excellent results and have less inherent risk. Malaria Pyrexia Therapy is also used less commonly since penicillin gives good results with less risk to the patient.

Each year more and more people are reporting to our clinics for pre-marital blood tests. The number of new cases of syphilis so discovered remains gratifyingly small but the procedure has a high educational value. From our point of view the law requiring pre-marital serologic tests is fulfilling its purpose admirably.

Education of the Public on matters pertaining to Venereal Disease remains a joint effort of this Division and the Division of Health Education. Our association with Mr. Evoy and his staff have been very pleasant.

At this time, I would like to express our appreciation of the fine work being done by the District Nurses in treating Venereal Disease in our outlying areas.

Relations with Venereal Disease Control Authorities of other Provinces have been happy and mutual help has been of great value in our work.

Organized prostitution is being kept at a minimum. Houses of prostitution are virtually unknown in Alberta. This happy state of affairs is the result of the splendid co-operation we have had from various law enforcement agencies in closing houses of prostitution as soon as they become known. The police have helped us in many ways and have made a real contribution to the work of Venereal Disease Control.

I should also express my appreciation of our own staff, who continue to give the Division their best efforts. The work is often difficult, calling for great tact and persistence, and is frequently very frustrating. Without capable and conscientious personnel, the control of Venereal Disease would rapidly deteriorate.

I am pleased to report that the incidence of new cases of syphilis remains low. Indeed clinical material for teaching purposes is now

hard to find. Cases of long standing syphilis make up the bulk of those reported and many of these are found in the course of routine testing on admission to hospital, or by serologic surveys. We still have occasional outbreaks of two or three new cases and only prompt action by social workers on such occasions keeps our rate low.

Gonorrhoea, while showing a gradual downward trend, is still far too common. Since the advent of our antibiotic treatment methods, the complications of this disease have almost disappeared, but rapid treatment alone does not appear to be the answer to this problem.

Of recent years it has been increasingly evident that we must find more and better ways to deal with and to rehabilitate the promiscuous and delinquent elements of our society. Perhaps modern sociology and psychiatry will provide the answer.

The tables attached give the statistical report of the work of the division.

ALLEGED SOURCES OF VENEREAL INFECTION OR CONTACTS
For the Period January 1st, 1951 to December 31st, 1951

Location of Source of Infection or Contact	Number of Sources of Infection or Contacts Reported	Number of Sources of Infection or Contacts Located	Percentage Sources of Infection or Contacts Located
Edmonton	620	532	86%
Calgary	305	248	81%
Lethbridge	33	20	61%
Medicine Hat	3	2	67%
Remainder of Province	571	498	87%
Alberta Totals	1532	1300	85%
Sources of Infection or Contacts reported outside of the Province of Alberta	120	66	55%
	1652	1366	83%

Unit Forwarding Information	Number of Sources of Infection or Contacts Reported	Number of Sources of Infection or Contacts Located	Percentage Sources of Infection or Contacts Located
Armed Forces	167	122	67%
Private Doctors and Provincial Clinics	1355	1159	86%
Other Provinces	130	95	73%
Totals	1652	1366	83%

Sources of Infection in Alberta who could not be located by authorities concerned	253
Sources of Infection outside of Alberta who could not be located by authorities concerned	57

DETAILS OF INFORMATION ON THE FACILITATION PROCESS

How Informant Met Source of Infection or Contact			Where Informant Met Source of Infection or Contact		
Pick-ups	645	38.4 %	Boarding House or Rooming House	23	1.4 %
Introduction	85	5.4 %	Restaurant or Beer Parlor	311	19 %
Friend	188	11.4 %	Dance Hall	151	9.1 %
Marital Partner	166	10 %	Street or Outdoors	214	13 %
Common-law Wife	38	2.3 %	Friend or Private House	149	9 %
House of Prostitution	3	0.2 %	Hotel	72	4 %
Appointment	32	2 %	Marital Partner	164	10 %
No Data Available	495	30 %	Recreation or Private Party	92	6 %
			Train, Railway Station, Bus Depot	12	1 %
			House of Prostitution	3	0.2 %
			Taxi or Taxi Office	7	0.4 %
			Service Station or Garage	0	0 %
			At Work	13	1 %
			No Data Available	441	26 %

DETAILS OF INFORMATION OBTAINED ON THE CONTACT INVESTIGATION

Place of Exposure				Occupation of Source of Infection or Contact			
Rooming House or Apt.	302	18	%	Waitress	170	10	%
Private House	185	11	%	Housewife	105	6	%
Outdoors	80	5	%	Prostitute or Street Walker	56	3.3	%
Car or Truck	173	10.5	%	Domestic, Hotel, Hospital			
Train, Boat, Auto-Camp	34	2	%	Porter	137	8	%
House of Prostitution	3	0.2	%	Clerk, Salesman, Steno,			
Taxi or Taxi Office	6	0.3	%	Teacher or Cashier	77	5	%
Hotel	278	17	%	Factory or Plant Worker ..	10	.6	%
Room, House or Shack	126	8	%	Service Personnel	19	1.2	%
No Data Available	465	28	%	Unemployed	56	3.3	%
				Laundress or Dry Cleaner	24	2	%
				Truck, Taxi or Bus Driver	24	2	%
				Farmer, Trapper or			
				Fisherman	40	2.4	%
				Student or Nurse	5	.3	%
				Dressmaker, Hairdresser or			
				Barber	4	.24	%
				Laborer or Transient	55	3.3	%
				Business man, Conductor or			
				Milkman	5	.3	%
				Tradesman, Electrician,			
				Plumber, etc.	23	1.4	%
				Trainman or Railwayman .	7	.42	%
				Pinsetter, Usher or			
				Usherette	4	.24	%
				No Data Available	831	50	%

PROVINCIAL CLINICS,—Provincial Building, 10048 101A Ave, Edmonton, Alberta

Total Nnumber of New Cases of Venereal Disease Classified as to Sex and Age of Patient.

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea (all forms)	2	....	....	21	16	397	54	....	....	490
Syphilis (Congenital)	5	2	....	....	7
Acquired—Primary	1	1	....	....	2
Acquired—Secondary	1	5	6	....	....	....	12
Acquired—Latent
Acquired—Tertiary (Cardiovascular)
Acquired—Tertiary (Neurosyphilis)
Acquired—Tertiary (other)	1	....	....	....	1
Type undeterimned	3	....	....	....	3
Totals	2	....	....	21	18	407	67	....	....	515

Number of cases of Syphilis—Male 10, female 15 25
Number of cases of Gonorrhoea—Male 418, female 72 490
Number and results of Wassermann tests: 7,909, of which 814 were positive.
Number and results of Cerebrospinal Fluid tests: 54, of which 17 were positive.
Number and results of Bacteriological tests for gonococci: 3,813, of which 587 were positive.

PROVINCIAL CLINIC, CALGARY—711 3rd Street East, Calgary

Total number of new cases of venereal disease classified as to sex and age of patient.

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea (all forms)	7	15	177	55	....	....	254
Syphilis (Congenital)	1	....	....	....	....	1	....	....	....	1
Acquired—Primary	2	1	....	....	3
Acquired—Secondary	6	3	....	....	9
Acquired—Latent
Acquired—Tertiary (Cardiovascular)
Acquired—Tertiary (Neurosyphilis)
Acquired—Tertiary (other)
Type undeterimned
Totals	1	....	....	7	15	186	59	....	....	268

Number of cases of syphilis—Male 9, female 5 14
Number of cases Gonorrhoea—Male 184, female 70 254
Number and results of Kahn and Wassermann tests: 3,857, of which 407 were positive.
Number and results of cerebrospinal Fluid tests: 29, of which 7 were positive.
Number and results of Bacteriological tests for gonococci: 2,778, of which 244 were positive.

PROVINCIAL CLINIC, MEDICINE HAT—Medicine Hat General Hospital, Medicine Hat

Total number of new cases of venereal disease classified as to sex and age of patient.

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea (all forms)	1	1	....	....	2
Syphilis (Congenital)
Acquired—Primary
Acquired—Secondary
Acquired—Latent
Acquired—Tertiary (Cardiovascular)
Acquired—Tertiary (Neurosyphilis)
Acquired—Tertiary (other)
Type undeterimned
Totals	—	—	—	—	—	—	—	—	1	1	—	—	2

Number of cases of syphilis—Male 0, female 0 0

Number of cases of Gonorrhoea—Male 1, female 1 2

Number and results of Kahn and Wassermann tests: 31, of which 0 were positive.

Number and results of Cerebrospinal Fluid tests: 0, of which 0 were positive.

Number and results of Bacteriological tests for gonococci: 18, of which 2 were positive.

PROVINCIAL CLINIC, LETHBRIDGE—315 10th Street South

Total number of new cases of venereal disease classified as to sex and age of patient.

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20yrs. & over		Age not stated		Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea (all forms)	13	2	1	....	16
Syphilis (Congenital)
Acquired—Primary
Acquired—Secondary
Acquired—Latent	2	....	....	2
Acquired—Tertiary (Cardiovascular)
Acquired—Tertiary (Neurosyphilis)
Acquired—Tertiary (other)
Type undeterimned
Totals	—	—	—	—	—	—	—	—	13	4	1	....	18

Number of cases of Syphilis—Male 0, female 2 2

Number of cases of Gonorrhoea—Male 14, female 2 16

Number and results of Kahn and Wassermann tests: 145, of which 54 were positive.

Number and results of Cerebrospinal Fluid tests: 10, of which 3 were positive.

Number and results of Bacteriological tests for gonococci: 79, of which 8 were positive.

PROVINCIAL GAOL—Lethbridge, Alberta

Total number of new cases of venereal disease classified as to sex and age of patient.

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea (all forms)	2	....	....	....	2
Syphilis (Congenital)
Acquired—Primary
Acquired—Secondary
Acquired—Latent	2	....	....	....	2
Acquired—Tertiary (Cardiovascular)
Acquired—Tertiary (Neurosyphilis)
Acquired—Tertiary (other)	1	....	....	....	1
Type undeterimned
Totals	—	—	—	—	—	—	—	—	5	....	—	—	5

Number of cases of Syphilis—Male 3 3

Number of cases of Gonorrhoea—Male 2 2

Number of prisoners admitted, 1,563

Number and results of Kahn and Wassermann tests: 1,465, of which 40 were postive.

PROVINCIAL GAOL—Fort Saskatchewan, Alberta

Total number of new cases of venereal disease classified as to sex and age of patient.

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea (all forms)	1	16	10	44	....	....	71
Syphilis (Congenital)
Acquired—Primary
Acquired—Secondary	1	....	....	1
Acquired—Latent	4	1	....	....	5
Acquired—Tertiary (Cardiovascular)
Acquired—Tertiary (Neurosyphilis)
Acquired—Tertiary (other)
Type undeterimned	2	....	....	2
Totals	—	—	—	—	—	—	1	16	14	48	—	—	79

Number of cases of Syphilis—Male 4, female 4 8
Number of cases of Gonorrhoea—Male 11, female 60 71
Number and results of Kahn and Wassermann tests: 2,159, of which 251 were positive.
Number and results of Cerebrospinal Fluid tests: 5, of which 1 was positive.
Number and results of Bacteriological tests for gonococci: 4,109, of which 137 were positive.

McLENNAN CLINIC—McLennan, Alberta

Total number of new cases of venereal disease classified as to sex and age of patient.

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea (all forms)	2	7	1	1	1	12
Syphilis (Congenital)
Acquired—Primary
Acquired—Secondary	1	1	....	....	2
Acquired—Latent
Acquired—Tertiary (Cardiovascular)
Acquired—Tertiary (Neurosyphilis)
Acquired—Tertiary (other)
Type undeterimned
Totals	—	—	—	—	—	—	2	8	2	1	1	14

Number of cases of Syphilis—Male 1, female 1 2
Number of cases of Conorrhoea—Male 8, female 4 12
Number and results of Kahn and Wassermann tests: 333, of which 4 were positive.
Number and results of Cerebrospinal Fluid tests: 0, of which 0 were positive.
Number and results of Bacteriological tests for gonococci: 93, of which 47 were positive.

MOBILE CLINIC—Lac La Biche, Caslan, Normandeau—also area north from Lac La Biche to Waterways and Fort McMurray

Total number of new cases of venereal disease classified as to sex and age of patient.

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea (all forms)	1	2	1	1	1	....	....	6
Syphilis (Congenital)
Acquired—Primary
Acquired—Secondary	1	....	....	1	....	....	2
Acquired—Latent	3	17	10	....	....	30
Acquired—Tertiary (Cardiovascular)
Acquired—Tertiary (Neurosyphilis)
Acquired—Tertiary (other)
Type Undetermined
Totals	—	—	—	—	—	1	3	4	18	12	....	....	38

Number of cases of Syphilis—Male 18, female 14 32
Number of cases of Gonorrhoea—Male 3, female 3 6
Number and results of Kahn and Wassermann tests: 685, of which 93 were positive.
Number and results of Cerebrospinal Fluid tests: 0 ,of which 0 were positive.
Number and results of Bacteriological tests for gonococci: 30, of which 6 were positive.

PRIVATE PHYSICIANS REPORTING CASES

Total number of new cases of venereal disease classified as to sex and age of patient.													
	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea (all forms)	1	...	...	1	...	1	19	24	248	42	12	6	354
Syphilis (Congenital)	1	...	...	...	...	...	...	...	2	...	...	...	3
Acquired—Primary .....	...	...	...	...	...	...	...	...	11	3	1	...	15
Acquired—Secondary .....	...	...	...	...	...	...	...	1	5	2	...	...	8
Acquired—Latent .....	...	...	...	...	...	...	2	2	24	23	2	7	60
Acquired—Tertiary (Cardiovascular) .....	...	...	...	...	...	...	...	...	2	1	1	...	4
Acquired—Tertiary (Neurosyphilis) .....	...	...	...	...	...	...	...	...	6	2	...	...	8
Acquired—Tertiary (other) .....	...	...	...	...	...	...	...	...	...	4	...	1	5
Type undeterimned .....	...	...	...	...	...	...	...	...	1	...	...	...	1
Totals	2	...	...	1	...	1	21	27	299	77	16	14	458
Number of cases of Syphilis—Male 58, female 46 104													
Number of cases of Gonorrhoea—Male 280, female 74 354													
Number of doctors in the Province receiving consultative service 243													
Number of doses of Arsenicals distributed to private physicians 826													
Number of doses of Bismuth distributed to private physicians 5800													
Number of units of Penicillin distributed to private physicians: 643—Vials (3,000,000 units) procaine G in Oil; 1288—Vials (300,000 units) Procaine G in Oil; 34 Vials (200,000 units) Crystalline Penicillin.													

NEW CASES OF SYPHILIS AND GONORRHOEA REPORTED IN ALBERTA, 1951													
Total number of new cases of Venereal disease classified as to sex and age of patient													
	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totals
Gonorrhoea (all forms)	1	....	....	3	....	2	70	74	950	200	19	7	1326
Syphilis (Congenital)	1	....	....	1	....	....	....	....	2	....	....	....	4
Acquired—Primary .....	....	....	....	....	....	....	....	....	17	5	1	....	23
Acquired—Secondary .....	....	....	....	....	....	....	1	2	9	7	....	....	19
Acquired—Latent .....	....	....	....	....	....	....	2	6	58	45	2	7	120
Acquired—Tertiary (Cardiovascular) .....	....	....	....	....	....	....	....	....	2	1	1	....	4
Acquired—Tertiary (Neurosyphilis) .....	....	....	....	....	....	....	....	....	6	2	....	....	8
Acquired—Tertiary (other) .....	....	....	....	....	....	....	....	....	4	5	....	1	10
Type undeterimned .....	....	....	....	....	....	....	....	....	1	5	....	....	6
	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	2	....	....	4	....	2	73	82	1049	270	23	15	1520
	—	—	—	—	—	—	—	—	—	—	—	—	—
Total number of cases of Syphilis—Male 107, female 87													194
Total number of cases of Gonorrhoea—Male 1040, female 286													1326

NEW PATIENTS ADMITTED TO THE VARIOUS CLINICS OF THE DIVISION OF SOCIAL HYGIENE IN 1951			
Sex	Syphilis	Gonorrhoea	Totals
Male	45	641	686
Female	41	212	253
Totals	86	853	939

CASES REPORTED BY DOCTORS AND MILITARY AUTHORITIES			
	Private Physicians	Armed Forces	Totals
Syphilis	104	4	108
Gonorrhoea	354	119	473
	<hr/>	<hr/>	<hr/>
Totals	458	123	581
	<hr/>	<hr/>	<hr/>
Total number of cases of Syphilis reported in Alberta			194
Total number of cases of Gonorrhoea reported in Alberta			1326
			<hr/>
			1520
			<hr/>
Total number of cases of Syphilis reported in Alberta exclusive of Armed per- sonnel			190
Total number of cases Gonorrhoea reported in Alberta exclusive of armed per sonnel			1207
			<hr/>
			1397

Report of the Provincial Laboratory

R. D. STUART, M.D., Director.

Re: *Annual Report—1951*

The statement in the accompanying annual report covers the activities of both Edmonton and Calgary Laboratories for the year 1951. The appended tables apply solely to the Edmonton Laboratory. Dr. Shute's personal report submitted independently provides the corresponding tabular figures for his laboratory.

During 1951 the Provincial Laboratories carried out 213,138 examinations. The nature of these tests is shown in the accompanying tables and shows a considerable spread of interest over general and sanitary bacteriology, tissue pathology and clinical pathology. The work done has increased by 21,010 examinations or by 11% indicating the continual growth in the demand for such services and the general importance of the Provincial Laboratories to community health.

Special Trends.

In the Central Provincial Laboratory. In Edmonton, the most striking trend was the increased interest in antibiotic resistance of microorganisms. This information is of direct importance in the treatment of most infectious or communicable disease and is of considerable value in keeping down the cost of such treatment. Another striking feature of this year's work has been the 60% increase in mycological examinations. This is in accordance with current trends in medical appreciation of the importance of fungi in human disease.

Dr. Macgregor, Head of the Pathology Department, reports a considerable increase in requests for the detection of tumor cells in body fluids. Smear diagnosis, particularly in relation to cancer of the lung, is becoming increasingly important, probably in consequence of the developing medical realization of the high incidence of this type of malignant process.

In the Southern Branch Laboratory. In Calgary, Dr. Shute reports a considerable increase in work associated with intestinal disease. This is due in some measure to the occurrence of a typhoid outbreak in the MacLeod area but principally to the fact that the addition to his staff of Dr. Crichton, an experienced bacteriologist, has allowed a considerable extension of work in this field. In the Southern Laboratory the sanitary bacteriology facilities for the examination of milks and waters have been in sharply increased demand, and it has proved necessary to carry out such investigations in unusual detail in order to satisfy the requirements of the area.

New or Supplementary Services.

During the year, and as anticipated in last year's report, the Central Laboratory was able to recommence the investigation of gonococcal infection by cultural methods. Considerable experimental work had to be carried out to evolve a satisfactory technique but the fact that 802 examinations have been carried out since the

service was initiated in the Fall shows that there is a considerable demand for this work. The increased diagnostic value of this type of service is very clearly shown in the figures for December. Out of 183 examinations 13 were positive; 8 of these being detected solely by the new culture technique.

In the Pathology Department of the Central Laboratory a study of a new method of smear diagnosis by the use of fluorescent dyes was undertaken in collaboration with the Department of Obstetrics and Gynaecology of the University Hospital. This may prove a valuable adjunct to diagnostic methods now employed in the diagnosis of cancer of the cervix.

In tuberculosis no new service has been offered but some experimental work has been carried out on the new haemagglutination technique. It is felt that this offers considerable promise in the evolution of a satisfactory serological test for tuberculosis but at the moment the test shows many irregularities which make specific interpretation difficult.

Regular Laboratory Services.

Bacteriological.—In the control of communicable disease it is difficult to say which examination is purely for therapeutic purposes and which is for public health control of infection. In consequence it may be said that practically all bacteriological investigations, with the possible exception of the so called sanitary bacteriology, is applicable in some measure to the control of infection. During the year there was no dramatic increase in any of the common pathogens identifiable in the laboratory. Diphtheria infection still seems to be on the downgrade which is reflected to some extent in the reduced number of throat swabs received. Two small typhoid outbreaks were encountered; one arising in the Devon area within the scope of the Central Laboratory and one in the Macleod district already referred to in connection with the Southern Laboratory. In both instances it was possible through numerous examinations to provide extensive epidemiological information to the health authorities responsible for the control of the respective outbreaks. In consequence of the topical importance of controlling sewage disposal, arising especially out of the Devon outbreak, some preliminary work on bacteria in sewage effluents was carried out with the co-operation of Dr. Baster, Director of Communicable Diseases. Although the work was not extensive, it was possible to show that pathogenic organisms of Enteric Salmonella groups were present in certain sewage outfalls.

The increased number of examinations in syphilis serology in both laboratories probably does not express any distinct increase in the incidence of such infection within the Province but is probably due mostly to casual variation.

Sanitary Bacteriology.—In both laboratories this aspect of the work has been concerned chiefly with the examination of water and milk. Because of the varied sources of these materials it is not possible to draw any conclusion from the higher percentage of samples fit for human consumption. Nevertheless the considerable increase in such specimens examined in the Southern Laboratory (45.33% for milk, 27.80% for water) demonstrates the increasing interest in, and appreciation of the service provided in that area.

Pathology.

Dr. Macgregor reports that the service offered to rural hospitals through the examination of surgical specimens continued to dominate the work in the Department of Pathology. During the year gross and microscopic reports were made on 11,572 surgical specimens. In this large routine, unsuspected cancers, which might otherwise have passed unrecognized, were not infrequently disclosed. Such cases could not have been diagnosed by any method other than microscopic study.

The examination of smears prepared from body fluids for the presence of tumor cells has already been referred to as a matter of increasing importance. In this group are included vaginal and cervical smears, sputum, bronchial washings and gastric secretions. Reports were made on 366 examinations of this kind during the year.

The examination of autopsy tissues for rural practitioners is also increasing, and tissues from 160 cases were examined during 1951. The interest of the rural practitioner in autopsy studies of his cases is a healthy index of the state of rural practice in the Province of Alberta.

Blood smear and bone marrow biopsies were reported upon in 182 cases. The Ascheim Zondek test for pregnancy was carried out in 459 cases. Medico Legal autopsies and other medico legal examinations have dropped off considerably in number over previous years.

Figures obtained from Dr. Shute of the Calgary Laboratory also show a considerable increase in the demand for such services. Pathological histological material showed an increase of 70% over last year and this striking figure was actually surpassed by the examinations of fluids for cancer cells. These figures indicate that Dr. Macgregor's remarks are of general provincial application.

Staff.

In August, Dr. D. Waugh resigned from the staff of the Pathology Department of the Central Laboratory to assume a research Professorship in Pathology at McGill University. Dr. Waugh was replaced by Dr. Gordon Macdonald, a graduate of the University of Alberta, who has been pursuing post-graduate studies at Sunnybrook Hospital in Toronto.

Dr. Gordon E. Myers, Assistant Professor of Bacteriology, rejoined the staff of the Edmonton Laboratory after a two year leave of absence during which he obtained the degree of Ph.D., McGill University. In this respect, the wisdom of the Provincial Government in allowing workers to gain invaluable experience outside the Province has been amply confirmed by the material contributions Dr. Myers has already made to the efficient working of the Central Laboratory.

Dr. E. P. Crichton, a medical bacteriologist, was added to the staff of the Southern Laboratory. In addition to her bacteriological experience, the value of which has already been indicated in this report, Dr. Crichton has had sufficient training in general pathology to allow her to deputize for Dr. Shute when he is unavoidably absent on account of holidays, sickness, etc. This will allow the Southern Laboratory to function as an independent unit, an absolute necessity on account of the distance involved and the urgency of many diagnostic procedures.

TABLE 1

WORK PERFORMED IN THE PROVINCIAL LABORATORY DURING THE YEAR 1951

	Total, 1950	Total, 1951	Increase	Decrease
Sputum Examinations	836	982	146	....
Diphtheria and Haemolytic Streptococci	5,492	5,312	....	180
Typhoid Fever (Agglutination test)	1,896	2,039	143	....
Milk	1,386	1,438	52	....
Water	4,127	4,233	106	....
Guinea Pig Inoculations	2,047	2,103	56	....
Miscellaneous Bacteriology	7,465	7,542	77	....
Blood Cultures	680	827	147	....
Enterobacteria and Intestinal Parasites	2,928	3,308	380	....
Urinalysis	25	15	....	10
Medico-Legal (Blood, seminal, etc.)	7	4	....	3
Cerebro-Spinal Fluids for the Wassermann Test	2,414	2,189	....	225
Bloods for Quantitative Kahn test	1,639	1,493	....	146
Bloods for the Wassermann Test	6,819	9,865	3,046	....
Bloods for the Standard Kahn Test	6,748	9,869	3,121	....
Bloods for the Presumptive Kahn Test	68,127	70,755	2,628	....
Smears for Gonococcus	8,763	9,263	500	....
Cultures for Gonococcus	1	802	801	....
Pathological Histological Material	10,363	11,572	1,209	....
Blood Smear Examinations	88	156	68	....
Post-mortem Examinations (Edmonton)	385	374	....	11
Post-mortem reports (outside points)	104	160	56	....
Ascheim-Zondek Tests	564	459	....	105
Comparative Series	2	..	....	2
Fluids for Cancer Cells	294	366	72	....
Cancer Cytology	66	53	....	13
Bone Marrows	51	26	....	25
Cerebro-Spinal Fluid Examinations (Colloidal Gold, Pandy)	3,331	2,421	....	910
Bacteriological Examinations (P.M.)	22	33	11	....
B. abortus Examinations (Agglutination test)	1,860	2,516	656	....
P. tularensis (Agglutination test)	1,860	2,039	179	....
B. melitensis (Agglutination Test)	2	0	....	2
Antibiotic sensitivities, etc.	1,374	8,266	6,892	....
Mycological examinations	356	570	214	....
Cattle Blood (Bang's Disease Agglutination test)	146	0	....	146
Weil Felix	0	4	4	....
Total.....	142,268	161,054	20,564	1,778

TABLE 2

DETAIL OF EXAMINATION OF MILK PERFORMED THROUGHOUT THE YEAR 1951

Milk	1950	1951
Number of milks examined bacteriologically	1,314	1,393
Number of milks examined for butterfat	178	164
Number of milks examined for B. coli	376	497
Number of milks tested by the Phosphatase Test	109	146
Number of ice creams examined	22	45
Number of rinse waters examined bacteriologically	50	0

TABLE 3

DETAIL OF THE BACTERIOLOGICAL AND CHEMICAL EXAMINATIONS OF WATER PERFORMED THROUGHOUT THE YEAR 1951

Water	1950	1951
Number of samples of water examined bacteriologically and found fit for human consumption	1,825	1,889
Number of samples of water examined bacteriologically and found unfit for human consumption	609	714
Number of samples of water examined bacteriologically and chemically and found fit for human consumption	361	293
Number of samples of water examined bacteriologically and chemically and found unfit for human consumption	228	275
Number of samples of water examined chemically and found fit for human consumption	846	715
Number of samples of water examined chemically and found unfit for human consumption	246	340
Number of samples of ice examined bacteriologically and found fit for human consumption	12	4
Number of samples of ice examined bacteriologically and found unfit for human consumption	0	3

TABLE 4
DETAIL OF SOME OF THE WORK DONE BY THE LABORATORY IN RELATION
TO THE CONTROL OF TUBERCULOSIS

Specimen	Guinea pig, smear and culture	Smear and culture	Positive	% Positive	Negative	% Negative
Sputum and Gastric Washings	786	63	98	11.5	751	88.5
Urine	666	12	97	14.3	581	85.7
Pleural Fluids	199	3	11	5.4	191	94.6
C.S.F.	129	....	22	17.05	107	82.95
Joint Fluids	44	....	10	22.7	34	77.3
Abdominal Fluids	4	1	....	....	5	100.
*Miscellaneous Specimens	134	4	19	13.8	119	86.2
Total	1962	83	257		1788	
Sputums examined by smear only		982	99	10.08%	883	89.71%
Grand Total		3027	356		2671	

*Miscellaneous specimens include swabs and pus of unspecified or unique origin, stools, milks, etc.

TABLE 5
BACTERIOLOGICAL EXAMINATIONS FOR EVIDENCE OF TYPHOID FEVER,
DYSENTERY AND RELATED INFECTIONS

Stool and urine cultures	1,077
Blood cultures	2,076
Bloods examined by agglutination tests for typhoid and related fevers, undulant fever and tularaemia	2,039

Source	Details of Results					Total
	Salmonella Typhi	S. para-typhi B.	Other Salmonella	Shigella	Negative	
Stool cultures	30	4	43	49	848	974
Urine cultures	3	....	1	....	99	103
Blood cultures	17	5	5	....	....	27
Gall bladder	2	....	....	....	....	2
C.S.F. (PM swab) .....	....	....	1	....	....	1
Total isolations	52	9	50	49	947	1107
Number of cases	11	4	21	39	....	65
Number of carriers	3	....	....	....	....	....

Details of Salmonella Cases and Carriers						
S. typhi-murium						11
S. oranienburg						7
S. newington						2
S. derby						1
Total						21

Cultures received from Animal Sources Supplied by Dr. E. E. Ballantyne, Provincial Veterinarian						
Cultures from Poultry:			From Other Animals:			
S. typhi-murium	18	S. typhi-murium				2
S. oranienburg	23	S. cholerae-suis				4
S. barielly	4	S. paratyphi B.				2
S. bredeney	1	S. bredeney				2
S. kentucky	1	S. derby				1
S. pullorum	2	S. newington				1
S. gallinarum	10	S. javiana				1
Total	59	Total				13

Moore Swab of Sewage	
S. typhi	2
S. typhi-murium	1
S. oranienburg	1
Negative	12
Total	16

Shigella Isolations	
Sh. sonnei	39
Sh. alkalescens	3
Sh. paradysenteriae (Flex. Z)	6
Sh. paradysenteriae (Flex. Wlla)	1
Total	49

TABLE 6
INTESTINAL PARASITES

Number of specimens examined and found negative for parasites—208					
Showing Cysts and Protozoa:		Worms or portions of worms:		Showing Ova:	
E. coli cysts	8	D. latum	2	E. vermicularis	9
E. histolytica cysts .	1	A. lumbricoides	7	Ascaris ova	1
I. butschlii cysts	1	T. saginata	2	Trichuris trichiura	2
G. lamblia cysts	3		11		12
	13	Total	244		

TABLE 7
MYCOLOGICAL EXAMINATIONS

Type of material examined	Number of specimens	Number found positive for pathogenic fungi
Skin and nail scrapings	262	64
Sputum	102	45
Scalp hairs	80	61
Beard hairs	26	8
Vaginal swabs	18	2
Mouth and throat	10	4
Miscellaneous	72	15
Total.....	570	199

Fungi identified	Source	No. of specimens
Aspergillus sydowi	nails	1
Candida albicans	mouth, nails, sputum, vagina scrapings, pleural fluid	63
Epidermophyton floccosum	groin	1
Malassezia furfur	skin	2
Microsporum audouini	scalp hairs, skin	24
Microsporum canis	scalp hair, skin	24
Mosaic fungus	skin	14
Nocardia minutissima	skin	1
Nocardia tenuis	hair	1
Trichophyton mentagrophytes	hair, skin scrapings	45
Trichophyton faviforme	hair, skin scrapings	19
Unidentified Dermatophytes	hair, skin	4

TABLE 8
BLOOD AND CEREBRO-SPINAL FLUID EXAMINATIONS BY SEROLOGICAL TESTS FOR THE DIAGNOSIS OF SYPHILIS DURING THE YEAR 1951

Bloods examined—Presumptive Kahn	70,755
Standard Kahn	9,869
Quantitative Kahn	1,493
Wassermann (Kolmer)	9,865
Cerebro-spinal fluids examined by Wassermann (Kolmer) tests	2,189
Bloods and cerebro-spinal fluids unsuitable for examination (N.S.Q., Haemolized, Accidentally broken)	1,559
Bloods broken and leaked in transit	160
Bloods and cerebro-spinal fluids “Positive” to reaction	1,046
Bloods and cerebro-spinal fluids “Negative” to reaction	69,425
Bloods and cerebro-spinal fluids giving “Doubtful Please Repeat” reaction	502
Bloods giving “Please Repeat” reaction	1,437
Bloods giving “Anti-complementary” reaction	94
Bloods giving “N.S.Q. Please Repeat”	119
Bloods giving “Results Not Interpreted”	485
Number of blood and cerebro-spinal fluids examined in 1950	69,697
Number of bloods and cerebro-spinal fluids examined in 1951	73,216
Increase in number of specimens examined	3,519
Increase in per cent	5.05%

TABLE 9
BLOOD AND CEREBRO-SPINAL FLUID EXAMINATIONS BY SEROLOGICAL TESTS FOR THE DIAGNOSIS OF SYPHILIS, BY THE MONTH, DURING THE YEAR 1951

	Presumptive Kahn Test	Standard Kahn Test	Quantitative Kahn Test	Blood Wasserm'n	C.S.F. Wasserm'n	Unsuitable A.C., Haem.)
January	5,355	579	127	561	200	167
February	4,995	731	122	743	178	110
March	5,355	887	137	895	168	174
April	5,633	961	144	974	169	103
May	6,639	1,093	142	1,086	194	96
June	7,239	971	172	972	224	92
July	6,020	728	131	720	195	108
August	6,442	889	140	883	186	121
September	5,622	684	114	684	143	105
October	5,868	832	107	831	173	159
November	6,229	721	91	723	188	134
December	5,358	793	66	793	171	190
Total.....	70,755	9,869	1,493	9,865	2,189	1,559

TABLE 10
PREMARITAL BLOODS SUBMITTED FOR SEROLOGICAL TEST FOR SYPHILIS
DURING THE YEAR 1951

	Negative	Positive	Doubt- ful Please Repeat	Please Repeat	N.S.Q. Please Repeat	Anti- Comp.	Results not Inter- preted	Unsuit- able	Total
January	545	1	1	2	8	1	....	20	578
February	396	2	1	5	2	....	....	12	418
March	549	2	1	11	4	....	....	33	600
April	718	4	2	32	....	2	....	14	772
May	980	2	....	19	2	....	....	19	1,022
June	1,467	4	8	14	1	....	....	11	1,505
July	1,151	3	1	17	....	....	....	20	1,192
August	1,133	4	1	9	....	1	....	17	1,165
September	864	3	5	1	....	....	....	7	880
October	918	2	....	....	....	1	17	34	972
November	1,007	....	....	....	....	....	16	26	1,049
December	720	....	....	....	....	....	16	47	783
Totals	10,448	27	20	110	17	5	49	260	10,936

TABLE 11
SERA AND VACCINE DISTRIBUTED DURING THE YEAR 1951

	Total 1950	Total 1951
Smallpox Vaccine:		
1 point	2,431	2,560
10 points	3,513	3,984
Diphtheria Antitoxin, in syringe:		
1,000 units	197	221
5,000 units	3	....
10,000 units	92	47
20,000 units	154	114
Diphtheria Toxoid:		
1 person	1,181	1,116
3 c.c.	37	86
6 c.c.	309	370
Diphtheria Toxoid and Pertussis (combined)		
1 person (4x1 c.c. ampoules)	6,707	6,489
9 persons (6x6 c.c. ampoules)	1,541	1,617
Schick Test: 25 persons	258	184
Scarlet Fever Antitoxin:		
3,000 units (syringe)	206	169
9,000 units (vial)	64	27
9,000 units (syringe)	13	28
Scarlet Fever Toxin:		
Strength "A"—30 doses (large)	56	83
Strength "B"—30 doses (large)	107	103
Strength "C"—30 doses (large)	89	149
Strength "D"—30 doses (large)	100	71
Strength "E"—30 doses (large)	179	77
1 person	1,457	1,234
6 persons	667	593
Dick Test: 10 persons	222	225
Tetanus Toxoid: 1 person	91	128
Tetanus Antitoxin:		
1,500 units	396	405
5,000 units	4	....
10,000 units	22	2
20,000 units	2	1
Pertussis Vaccine:		
1 person	881	838
9 persons	96	124
Staphylococcus Toxoid: 2 c.c. vial	62	120
Staphylococcus Antitoxin:		
10,000 units	8	12
20,000 units .....	....	....
Gas Gangrene Antitoxin:		
4,000 units	137	184
10,000 units	22	66
Typhoid-Paratyphoid Vaccine:		
1 person	754	328
10 c.c.	1,563	1,042
Anti-Measles Serum: 5 c.c.	902	1,055
Immune Serum Globulin:		
2 c.c.	112	1,091
10 c.c. ....	....	107
Diluted Diphtheria Toxoid:		
1 person	36	7
2½ c.c. (Reactors) .....	....	1
T.A.B.T. Vaccine: 3 c.c.	809	438
Rocky Mountain Spotted Fever Vaccine:		
3 c.c.	81	....
50 c.c. ....	....	3

TABLE 11—Continued

	Total 1950	Total 1951
Other Vaccines:		
Autogenous Vaccine, 25 c.c. bottle	25	22
Rabies Vaccine, 14 c.c. bottle .....	....	2
Antivenin Snakebite Serum, 15 c.c. ....	....	4
Diphtheria Toxoid & Pertussis & Tetanus Vaccine:		
1 person	315	1,326
9 persons	144	617
Diphtheria Toxoid and Tetanus Toxoid:		
1 person	3	97
9 persons .....	....	68

TABLE 12

COMMERCIAL VALUE OF WORK IF MINIMUM CHARGE WERE MADE, 1951

Sputum Examination	982	\$ 1.00	\$ 982.00
Diphtheria and Haemolytic Streptococci	5,312	1.00	5,312.00
Typhoid Fever (Agglutination tests)	2,039	1.00	2,039.00
Milk	1,438	3.00	4,314.00
Water	4,233	10.00	42,330.00
Guinea pig inoculations	2,103	3.00	6,309.00
Miscellaneous Bacteriology	7,542	3.00	22,626.00
Blood cultures	827	3.00	2,481.00
Enterobacteria and Intestinal Parasites	3,308	3.00	9,924.00
Urinalysis	15	1.00	15.00
Medico-Legal (Blood, seminal, etc.)	4	5.00	20.00
Cerebro-Spinal Fluids for Wassermann Test	2,189	1.00	2,189.00
Bloods for the Quantitative Kahn Test	1,493	.....	.....
Bloods for Wassermann Test	9,865	1.00	9,865.00
Bloods for Standard Kahn Test	9,869	1.00	9,869.00
Bloods for Presumptive Kahn Test	70,755	1.00	70,755.00
Smears for the Gonococcus	9,263	1.00	9,263.00
Cultures for Gonococcus	802	1.00	802.00
Pathological Histological material	11,572	5.00	57,860.00
Blood Smear Examinations	156	2.00	312.00
Ascheim-Zondek Tests	459	5.00	2,295.00
Comparative Series .....	....	3.00	.....
Fluids for Cancer Cells	366	5.00	1,830.00
Cancer Cytology	53	2.00	106.00
Bone Marrows	26	5.00	130.00
Cerebro-Spinal Fluid Examinations (Colloidal Gold, Pandy)	2,421	2.00	4,842.00
Bacteriological Examinations (P.M.)	33	5.00	165.00
B. abortus examinations (Agglutination Test)	2,516	.50	1,258.00
P. tularensis (Agglutination Test)	2,039	.50	1,019.50
B. melitensis (Agglutination Test) .....	.....	.50	.....
Autogenous Vaccine	22	5.00	110.00
Antibiotic sensitivities, etc.	8,266	1.00	8,266.00
Mycological examinations	570	3.00	1,710.00
Weil Felix	4	1.00	4.00
Total.....			\$279,002.50

TABLE 1

WORK PERFORMED IN THE PROVINCIAL LABORATORY, SOUTHERN BRANCH
CALGARY, DURING THE YEAR 1951

Sputum Examinations	3,887+	130
Diphtheria and Haemolytic Streptococci	309—	60
Typhoid Fever (Agglutination Test)	903+	250
Milk	753+	240
Water	1,154+	250
Guinea Pig inoculations	650+	130
Miscellaneous Bacteriology	580+	140
Blood Cultures	136+	40
Enterobacteria and Intestinal Parasites	315+	250
Urinalyses	2,447—	330
Medico-Legal (Blood, Seminal, etc) .....	.....
Blood Counts	1,240—	340
Biochemistry Investigations	130—	4
Cerebro-spinal fluids for the Wassermann Test	661—	40
Bloods for the Quantitative Kahn Test	318—	250
Bloods for the Wassermann Test	3,145—	550
Bloods for the Standard Kahn Test	2,876—	474
Bloods for the Presumptive Kahn Test	23,243+	1,750
Smears for Gonococcus	3,137—	800
Van Den Bergh Determinations	3—	54
Pathological Histological Material	3,446+	1,400
Blood Smear Examinations	108+	48
Post Mortem Examinations	6+	1
Histology from Post Mortems	40+	8
Ascheim Zondek Examinations .....	.....
Fluids for Cancer Cells	79+	33
Cerebro-spinal fluid Examinations (Colloidal Gold, Pandy)	699—	8
Bacteriological Examinations (P.M.) .....	.....
B. abortus Examination (Agglutination Test)	907+	275
P. tularensis (Agglutination Test)	907+	275
B. melitensis (Agglutination Test) .....	.....
Cattle Blood (Bang's Disease—Agglutination Test) .....	.....
Bone Marrow	1	
		52,084

TABLE 2
DETAILS OF EXAMINATIONS OF MILK PERFORMED THROUGHOUT THE YEAR 1951

Milk	
Number of milks examined bacteriologically	753
Number of milks examined for butterfat	25
Thermophilic count	4
Number of milks examined for B. coli	753
Number of milks tested by the Phosphatase Test	96
Number of ice creams examined .....	.....
Number of rinse waters examined bacteriologically .....	.....

TABLE 3
DETAILS OF BACTERIOLOGICAL EXAMINATIONS OF WATER PERFORMED
THROUGHOUT THE YEAR 1951

Number of samples of water examined bacteriologically and found fit for human consumption	852
Number of samples of water examined bacteriologically and found unfit for human consumption	313
Number of samples of ice examined bacteriologically and found fit for human consumption	1
Number of samples of ice examined bacteriologically and found unfit for human consumption .....	.....

TABLE 4
LABORATORY WORK DONE IN RELATION TO THE CONTROL OF TUBERCULOSIS
DURING THE YEAR 1951

Specimen	Examined by smear, animal inoculation and culture	Positive	% Positive	Negative	% Negative
Sputum and Gastric Washings	137	27	19.7 %	110	80.3 %
Urine	336	41	12.2 %	295	87.8 %
Pleural Fluids	54	5	9.26%	49	90.74%
C.S.F.	37	3	8.11%	34	91.9 %
Joint Fluids	18	.....	.....	18	100. %
Abdominal Fluids	6	.....	.....	6	100. %
*Miscellaneous specimens	62	5	8.06%	57	91.94%
Total	650	81		569	
Sputums examined by smear only	3887	1014		2873	
Miscellaneous examined by smear only	284	29		255	
Grand Total	4821	1124		3697	

*Miscellaneous specimens include swabs and pus of unspecified or unique origin, stools, milks, etc.

TABLE 5
TESTS MADE IN RESPECT TO THE USE OF ANTIBIOTICS, PENICILLIN,
AUREOMYCIN, TERRAMYCIN, AND CHLOROMYCETIN

Determination	No. Done
Penicillin sensitivity of a variety of organisms isolated from cases of infection ...	53
Penicillin Blood Level .....	.....
Streptomycin sensitivity of Mycobacterium tuberculosis isolated from cases	4
Streptomycin sensitivity of other bacteria	41
Streptomycin Blood Level .....	.....
Streptomycin Urine Level .....	.....
Aureomycin sensitivity of other bacteria	40
Terramycin sensitivity of other bacteria	36
Chloromycetin sensitivity of other bacteria	37

TABLE 6
BACTERIOLOGICAL EXAMINATIONS FOR EVIDENCE OF TYPHOID FEVER,
DYSENTERY AND RELATED FEVERS

Stool and urine cultures	313
Blood cultures	5
Bloods examined by agglutination test for typhoid and related fevers, undulant fever and tularemia	911

Source	Details of Results					Total
	Salmonella Typhi	S. para- typhi	Other Salmonella	Shigella	Negative	
Stool cultures	6	.....	3	10	234	253
Urine cultures	4	.....	.....	.....	54	58
Plated cultures .....	.....	.....	2	.....	.....	2
Blood cultures	5	.....	.....	.....	.....	5
Duodenal drainage .....	.....	.....	.....	.....	.....	.....
Osteomyelitis .....	.....	.....	.....	.....	.....	.....
Autopsy .....	.....	.....	.....	.....	.....	.....
Total Isolations	15	.....	5	10	.....	.....
Number of cases	11	.....	4	8	.....	.....
Number of bloods examined by agglutination test and found negative						662
Number of bloods unsuitable for agglutination test						36
Number of bloods examined by agglutination test and found positive						213

Details of Salmonella Cases:		Details of Shigella Cases:	
Salmonella Syphi	15	Shigella sonnei	9
Salmonella oranienburg	2	Shigella paradysenteriae	1
Salmonella typhi-murium	2	(Flexner 2 Type)	
Salmonella tennessee	1		

TABLE 6A
INTESTINAL PARASITES

Number of specimens examined and found negative for parasites		24	
Number of specimens examined and found positive for parasites		6	
Ova identified		Gross worms or portions	
Ascaris lumbricoides	1	Taenia solium	2
Adult females			
Ascaris lumbricoides	3		

TABLE 7
BLOOD AND CEREBRO-SPINAL FLUID EXAMINATIONS BY SEROLOGICAL TESTS
FOR THE DIAGNOSIS OF SYPHILIS DURING THE YEAR 1951

Blood examined—Presumptive Kahn	23,243
Standard Kahn	2,876
Quantitative Kahn	720
Wassermann (Kolmer)	3,145
Cerebro-spinal fluids examined by Wassermann (Kolmer) test	661
Bloods and cerebro-spinal fluids unsuitable for examination (N.S.Q., A.C., Accidentally broken)	978
Bloods broken and leaked in transit	44
Bloods and cerebro-spinal fluids “Positive” to reaction	614
Bloods and cerebro-spinal fluids “Negative” to reaction ..	23,338
Bloods and cerebro-spinal fluids giving “Doubtful Please Repeat” reaction	265
Bloods giving “Please Repeat” reaction	424
Bloods giving “Report As Is” reaction	67
Bloods giving “N.S.Q. Please Repeat” reaction	106

TABLE 8
BLOOD AND CEREBRO-SPINAL FLUID EXAMINATIONS BY SEROLOGICAL TESTS
FOR THE DIAGNOSIS OF SYPHILIS, BY THE MONTH, DURING THE YEAR 1951

Month	Presumptive Kahn Test	Standard Kahn Test	Quantitative Kahn Test	Blood Wasserm'n	C.S.F. Wasserm'n	Unsuitable (N.S.Q., A.C., Haem.)
January	1,860	265	84	296	56	68
February	1,685	239	80	265	50	62
March	1,601	298	67	321	48	138
April	1,834	297	60	319	51	96
May	2,179	238	73	266	54	115
June	2,247	235	55	271	62	91
July	1,957	194	45	207	51	85
August	2,164	244	66	267	48	95
September	2,060	204	56	229	49	54
October	2,116	217	56	229	63	57
November	1,959	243	51	250	56	38
December	1,581	202	27	225	73	116
Totals	23,243	2,876	720	3,145	661	978

TABLE 9
PREMARITAL BLOODS SUBMITTED FOR SEROLOGICAL TESTS FOR SYPHILIS
DURING THE YEAR 1951

Month	Negative	Positive	Doubtful	Please Repeat	N.S.Q. Please Repeat	Report as is	Unsuit- able	Total
			Please Repeat					
January	351	....	3	....	....	....	13	367
February	332	1	1	....	1	....	10	345
March	407	2	....	....	2	....	39	450
April	441	....	2	....	....	....	24	467
May	744	2	....	2	2	....	34	784
June	883	5	1	6	2	....	39	936
July	654	....	....	....	....	....	31	685
August	761	2	....	11	2	....	39	815
September	636	4	....	2	3	....	17	662
October	697	1	1	1	....	....	21	721
November	602	1	1	4	....	....	13	621
December	484	1	....	3	2	....	45	535
Totals	6,992	19	9	29	14	....	325	7,388

TABLE 11
SERA AND VACCINE DISTRIBUTED DURING THE YEAR 1951

	Total 1951
Smallpox Vaccine:	
1 point	2,368
10 points	1,754
Diphtheria Toxoid:	
3x1 c.c. amps	1,003
6x3 c.c. amps	99
6x6 c.c. amps	151
Diphtheria Antitoxin:	
1,000 units (syringe)	35
5,000 units (syringe)	6
10,000 units (syringe)	7
20,000 units (syringe)	101
Diphtheria Toxoid and Pertussis Vaccine Combined:	
1 person (4x1 c.c. ampoules)	3,176
9 persons (6x6 c.c. ampoules)	338
Diphtheria Toxoid and Tetanus Toxoid Combined:	
1 person (4x1 c.c. ampoules)	33
Diphtheria Toxoid, Pertussis Vaccine and Tetanus Toxoid, Combined:	
1 person (4x1 c.c. ampoules)	2,231
9 persons (6x6 c.c. ampoules)	53
Diphtheria Toxin for Schick Test:	
25 tests	202
Scarlet Fever Toxin:	
1 person (5x1 c.c. vial)	624
6 persons (6x5 c.c. vial)	228
Strength "A"—30 doses (large)	9
Strength "B"—30 doses (large)	43
Strength "C"—30 doses (large)	9
Strength "D"—30 doses (large)	9
Strength "E"—30 doses (large)	9
Scarlet Fever Antitoxin:	
3,000 units (syringe)	133
9,000 units (vial)	43
9,000 units (syringe)	316
Scarlet Fever Streptococcus Toxin for Dick Test:	
10 tests	246
Typhoid-Paratyphoid Vaccine:	
1 person (3 ampoules)	657
5-7 persons (10 c.c. vial)	988
T.A.B.T. Vaccine:	
1 person (3 c.c. vial)	175
Tetanus Toxoid:	
1 person (3x1 c.c. ampoules)	203
Tetanus Antitoxin:	
1,500 units (syringe)	513
5,000 units (syringe)	6
10,000 units (syringe)	51
20,000 units (syringe)	1
Pertussis Vaccine:	
1 person (4x1 c.c. ampoules)	600
9 persons (6x6 c.c. ampoules)	3
Anti-Measles Serum:	
5 c.c.	990
Gas-Gangrene Antitoxin:	
4,000 units (vial)	64
10,000 units (vial)	130
Staphylococcus Toxoid:	
2x2 c.c. vials (A and B)	143
Staphylococcus Antitoxin:	
10,000 units (vial)	5
20,000 units (vial)	3
Immune Serum Globulin (Human):	
2 c.c.	111
Antivenin North American Snakebite Serum:	
1 combination pkg.	4
Rocky Mountain Spotted Fever Serum:	
2 c.c.	1

TABLE 14
Clinical Pathology Investigations

CONDUCTED FOR THE CENTRAL ALBERTA SANATORIUM DURING THE YEAR 1951	
Blood Counts	1,240
Urinalyses	2,447
Biochemistry Investigations (Blood Sugars, N.P.N.'s, etc.)	134

Sanitary Engineering Division

W. A. DEXTER, B.Sc., M.A.Sc., *Acting Director.*

The installation of new waterworks and sewerage systems in the municipalities throughout the Province continued at a very high rate. This growth in the number of communities served by modern utilities is unique in Canada and reflects Alberta's prosperity and high standard of living. The fact that money was made available by the Provincial Government for such works under the Self-liquidating Projects Act and at the very low interest rate of 2% was chiefly responsible for the large amount of construction carried out. Eleven towns and villages financed the construction of new waterworks and sewerage systems with a total expenditure of \$1,430,000.00. Another fifteen municipalities borrowed \$9,960,000.00 for major extensions to existing systems.

Of prime interest was the outbreak of typhoid fever in the town of Macleod during September 1951. Although it was not possible to prove definitely the source of infection, the investigation showed that in all probability the water supply for the town was contaminated for a few weeks prior to the outbreak. The filtration plant had not been in use for several months as it was felt too costly to operate. In addition, the supply of chlorine had been exhausted early in August and there was a period of possibly ten days when the citizens of Macleod were being supplied with completely untreated water. Active cases of typhoid fever were found upstream amongst the Peigan Indians.

The foregoing epidemic forcibly illustrated the need for more frequent inspection and supervision of treatment plants by Provincial Sanitary Engineers. In addition, a training program is necessary for plant operators. In this respect plans were made to hold a one week course for operators and engineers early in the spring of 1952.

In May, Mr. W. A. Dexter, M.A.Sc. rejoined the staff of the Division as Assistant Provincial Sanitary Engineer.

Engineering.

Municipal: Due to the large number of municipalities installing either new waterworks and sewerage systems or extensions to existing systems, a great deal of time was spent checking each design to ensure that it was in accord with good public health engineering practise.

With the limited staff of two engineers engaged in municipal assistance work it was only possible to investigate specific complaints or assist municipalities who had requested help. To carry out routine inspection of water treatment plants, distribution systems and sewage disposal facilities, it will be necessary to increase the staff of the Division by at least one engineer. It is very important that a program of regular inspection work be started as soon as possible as there are many waterworks and sewerage systems in the Province whose operation has not been checked by a competent engineer for several years.

Stream Sanitation: The survey of the pollution of the North Saskatchewan River was completed and a detailed report prepared. As a result of this survey, the Provincial Board of Health issued an order to the City of Edmonton to install primary sewage treatment facilities by November 1st, 1954. When the population of the City of Edmonton reaches 220,000 persons it must install secondary treatment plants. The Board also directed that dumping of garbage along the banks of the North Saskatchewan River be discontinued. During the summer a pollution survey was started on the Bow River and its Tributaries. It is hoped to complete this project during 1952.

Numerous complaints were received by the Division with regard to the obnoxious odours arising from Stirling Lake and Etzikom Coulee. As a result, an investigation was made during November and December. The lake had become septic and tests made on entering wastes showed that the plant operated by Canadian Sugar Factories Limited at Raymond was chiefly responsible for the condition. A detailed study was made and a comprehensive report prepared giving specific recommendations for the pollution abatement. The report is presently being studied by all interested parties.

The following certificates were issued by the Provincial Board of Health during 1951 covering waterworks, sewage works, and hospital construction. The designs were checked by the engineering staff of this Division.

Certificate No.	Provisional or Final	To Whom Issued	Proposed Works	Estimated Cost
732	P	Town of Nanton,	Sewerage System	\$ 76,400
733	F	City of Calgary,	Water and Sewer Construction	200,000
734	P	Town of Stony Plain,	Waterworks	96,500
735	P	Town of Stony Plain,	Sewerage System	63,500
735A	F	Village of Provost,	Waterworks and Sewerage	163,000
736	P	Town of Westlock,	Waterworks Extensions	31,150
737	P	Town of Westlock,	Sewerage Relief Line	3,850
738	F	Galt Hospital, Lethbridge,	New Hospital	1,500,000
739	F	City of Edmonton,	Waterworks Extensions	2,748,450
740	F	City of Calgary,	Sewerage Extensions	217,896
741	P	City of Edmonton,	Sewerage Extensions	1,865,000
742	F	Village of Two Hills,	Water and Sewer Extensions	21,500
743	P	City of Red Deer,	Sewer Extensions	19,200
744	F	City of Edmonton,	Waterworks Extensions	193,187
745	F	City of Lethbridge,	Sewer Extensions	55,970
746	P	City of Calgary,	Sewer Extensions	233,952
747	P	Town of Hanna,	Waterworks Extensions	19,400
748	P	Town of Hanna,	Sewer Extensions	18,600
749	F	City of Edmonton,	Sewer Extensions	107,924
750	F	Town of Olds,	Well and Supply line	58,000
751	P	Town of Brooks,	Sewerage Extensions	76,500
752	F	City of Lethbridge,	Waterworks Extensions	136,820
753	F	Town of Bonnyville,	Water and Sewer Extensions	40,500
754	P	City of Red Deer,	Sewer Extensions	19,200
755	F	City of Calgary,	Sewer Connections	221,850
756	F	Village of Two Hills,	Water and Sewer Extensions	37,693
757	F	Town of Fairview,	Waterworks Extensions	12,000
758	F	City of Edmonton,	Sewer Extensions	257,096
759	F	City of Edmonton,	Waterworks Extensions	1,869,450
760	F	Misericordia Hospital, Edmonton,	Hospital Addition	311,510
761	F	City of Red Deer,	Waterworks Extensions	58,000
762	F	Town of Athabasca,	Sewer Extensions	12,343
763	P	Village of Elk Point,	Waterworks System	102,007
764	P	Village of Elk Point,	Sewerage System	48,037
765	P	Village of Coaldale,	Waterworks and Sewerage System	186,750
766	F	Town of Coronation,	Sewerage System	76,400
767	P	Village of Champion,	Waterworks System	63,300
768	F	City of Calgary,	Sewer Extensions	194,700
769	F	Town of Hanna,	Waterworks Extensions	19,400
770	F	Town of Hanna,	Sewer Extensions	18,600
771	P	Town of Bassano,	Water Intake System	9,250
772	F	Athabasca Municipal Hospital,	Athabasca, New Municipal Hospital	223,657
773	F	Town of Olds,	Sewer Extensions	9,477
774	P	Town of Okotoks,	Waterworks and Sewerage System	141,720
775	F	Village of Trochu,	Waterworks Extensions	10,835
778	P	Village of Lac La Biche,	Sewerage System	64,632
779	P	Village of Lac La Biche,	Waterworks System	76,791
780	F	Village of Provost,	Water Main Extensions	7,000

Certi- ficate No.	Pro- visional or Final	To Whom Issued	Proposed Works	Estimated Cost
781	F	Village of Provost,	Sewer Extensions	4,905
782	F	Edmonton General Hospital,	Hospital Addition	1,836,765
783	P	Town of Castor,	Waterworks System	121,651
784	P	Town of Castor,	Sewerage System	83,220
785	F	City of Lethbridge,	Water Main Extensions	200,000
786	F	City of Edmonton,	Storm Sewers	190,000
787	F	City of Edmonton,	Watermain Extensions	757,759
788	P	Village of Carstairs,	Sewerage System	65,007
789	P	Village of Carstairs,	Waterworks System	77,615

Plumbing.

The year 1951 was a memorable one from the standpoint of plumbing installations. This was mainly brought about by two factors which in future years will continue to keep the number of plumbing installations at a high level. These factors were, first, "The Self-Liquidating Projects Act", and second, the bright harvest year which was visualized by farmers and towns' people alike.

The vast industrial expansion program, which became a reality during this year in the Edmonton area, necessitated this branch of the Division devoting a considerable amount of time to the correcting of plans and blueprints which were submitted to this office for approval.

The extension of rural electrification lines throughout the Province increased the installation of plumbing facilities immensely as each family concerned feels that it is entitled to the most modern conveniences as such conveniences are made available. It has also been noted that a number of farmers are maintaining two homes. One on the farm and one in the town or village nearest their farm home. In all cases plumbing is installed in each home indicating that necessity in their everyday living.

It is well known that the Self-Liquidating Projects Act has made it possible for towns and villages to install water and sewerage systems at a rate far surpassing that of any other Province in the Dominion of Canada. This, of course, increases the amount of inspection work required and it is suggested that steps be taken to either relieve the present staff of this increase in the number of inspections required or increase the staff to a point sufficient to cope with this tremendous increase in plumbing installations.

The two tables which accompany this report indicate that 42,236 plumbing fixtures were installed during the year. The value of this amount of plumbing is approximately three million dollars. It is quite evident that this number of fixtures is not an exact figure as a number of installations are being completed without a permit being applied for or an inspection being made. In order to intercept the installations which are completed without permits being issued, it would be necessary for this branch of the Division of Sanitary Engineering to employ at least four more plumbing inspectors.

The end of the year found this branch with a back-log of inspections which will require at least six months to complete. The industrial expansion which has taken place in the Edmonton area is sufficient to demand a plumbing inspector full time, therefore, it appears that a portion of the back-log will not be inspected for a considerable time.

TABLE 1
ANNUAL PLUMBING REPORT—1951

Inspections Made	New Construction Total No. Fixtures	Reconstruction and Extensions	Permits Granted	Charges Made
Provincial	6,644	538	1,706	\$ 9,827.98
Edmonton	17,609	1,324	2,531	16,470.00
Calgary	10,290	0	2,197	9,938.75
Lethbridge	2,100	665	417	1,646.50
Medicine Hat	882	178	154	303.75
Red Deer	754	13	126	398.50
Drumheller	64	4	18	105.00
Hanna	34	0	13	.....
Banff	548	101	90	250.75
Jasper .....	.....	.....	.....	.....
Waterton	28	23	13	12.75
Total	38,953	2,846	7,265	\$38,953.98

TABLE 2
ANNUAL PLUMBING REPORT—1951

Location	W.C.	Lavatory Basin	Showers and Bath	Sinks	Laundry Tubs	Special Fixtures	Septic Tanks	Privies Eliminated
Provincial	1,874	1,890	1,493	1,539	147	239	549	568
Edmonton	5,313	5,450	3,065	3,204	293	1,608	4	97
Calgary	2,970	2,673	2,310	1,874	367	96	0	0
Lethbridge	675	632	379	498	9	572	2	110
Medicine Hat	322	298	174	204	3	59	1	24
Red Deer	215	209	137	164	10	32	1	52
Drumheller	19	17	10	14	2	6	0	4
Hanna	9	8	8	9	0	0	0	9
Banff	147	156	156	72	9	109	0	0
Jasper .....	.....	.....	.....	.....	.....	.....	.....	.....
Waterton	14	12	12	13	0	0	12	6
Total	11,558	11,345	7,744	7,578	840	3,171	569	870

Sanitary Inspection.

The staff of this section remained at a Chief Sanitary Inspector and four Provincial Sanitary Inspectors throughout the year. The opening of a new Health Unit in the Vermilion area together with enlargement of some existing Health Units necessitated some boundary changes between the four inspectorates. Also, Mr. E. Tyler, Provincial Inspector, was moved from Vermilion to Wetaskiwin on September 1, 1951 as part of these changes.

The program of assisting Local Authorities in dealing with sanitary matters was continued with good results during the year. This program was carried out by making routine inspections of eating establishments and milk handling establishments as well as by giving attention to complaints and requests received from the public.

During the tourist season, tourist camps were inspected for sanitary conditions and classified in co-operation with the Department of Industries and Labour. Approximately 1,600 cabins in 179 tourist camps were licensed during the year. In addition, a number of inspections were made to assist persons building or planning to build tourist camps.

During the winter months, the Provincial Sanitary Inspectors inspected a number of logging camps particularly in the northern and central portions of the province.

A summary of the inspections made by the Provincial Sanitary Inspectors is appended hereto. It will be noted that out of the total of 2,724 inspections, 1,319 were made at restaurants and 478 at milk producing farms.

There appears to be an increasing need for public health control of milk supplies. Conditions at the premises where milk is produced are in many instances far from suitable. This is particularly true in the smaller establishments serving small communities usually without the protection of pasteurization. It may be mentioned that investigations of two separate cases of typhoid fever carried out by this section during the year indicated the sources of infection most probably were typhoid carriers carrying on the business of supplying milk for human consumption.

Each winter approximately 1,000 logging camps operate in the forest regions of the province. About 10% of these camps were visited by Provincial Sanitary Inspectors during 1951. Conditions at these camps vary widely, there being some which from a public health viewpoint have a higher standard than many restaurants and rooming houses. About half of those inspected were found to have conditions which could be considered a danger to health. On this basis it would appear that a considerable increase in the Division's activities in logging camps would be justified.

There appears to be need for an educational program directed at food handlers employed in eating establishments. A rising interest in the possibilities of such a program has been noted amongst restaurant operators as well as in other groups. It is thought that such a program might be offered in co-operation with Health Units and City Health Departments if staff were available for the purpose.

At the end of the year 1951 there were 30 cities, towns and villages in the province which had compulsory pasteurization by-laws in force. This total includes the Village of Eckville which passed its by-law during the year. During the year, a new pasteurizing plant was opened at Redwater while plants at Morinville and Waterton Park discontinued operations. The total number of plants supplying pasteurized milk to the public at the end of the year was 75, a decrease of one from the previous year. In addition, there were 6 private pasteurizing plants supplying milk to schools and institutions, an increase of one over the previous year.

Provisional Certificates of Approval were issued covering eleven proposed cemetery sites during the year. Five new cemeteries received Final Certificates of Approval. In addition, 306 Final Certificates of Approval were issued covering cemeteries which had been established prior to the coming in force of the present cemetery regulations.

SANITARY INSPECTIONS, 1951

Classes of Inspections	Com- plaints	Re- quests	Routine	Follow-up	Total
1. Milk: Producers & Producer-Distributors	3	51	417	7	478
2. Milk: Milk Plants	1	2	85	6	94
3. Milk: Other than above	1	....	2	....	3
4. Restaurants	1	25	1,219	74	1,319
5. Other Food Handling Establishments	2	7	81	19	109
6. Housing	14	5	4	2	25
7. Industrial and Construction Camps.....	6	2	116	....	124
8. Hotels, Tourist Camps, Trailer Camps, Recreation Camps .....	....	1	220	9	230
9. Sewage Disposal: Private Systems	9	13	32	2	56
10. Sewage Disposal: Public Systems	2	....	7	1	10
11. Water Supplies: Private	2	14	51	2	69
12. Water Supplies: Public .....	....	2	17	10	29
13. Swimming Pools .....	....	....	5	....	5
14. Cemetery Sites .....	....	7	5	1	13
15. Nuisance Grounds	3	5	38	2	48
16. Garbage Disposal	3	4	19	....	26
17. Town General Sanitation .....	....	2	4	....	6
18. Slaughter Houses .....	....	1	12	....	13
19. Stock Yards, Fur Farms, Piggeries, Livery Barns, etc.	8	3	22	2	35
20. Miscellaneous Inspections	1	12	18	1	32
Totals.....	56	156	2,374	138	2,724

Communicable Disease Investigations.....	43
Samples Submitted for Laboratory Examination:	
Water Bacteriological	185
Water Chemical	20
Milk	36
Other Material	8
Notices Issued	5
Notices Complied with	7
Prosecutions	Nil

Hospital and Medical Services Division

M. G. McCallum, M.D., D.P.H., *Director.*

The number of approved hospitals in the province was increased in 1951 by the re-opening of the Katherine H. Prittie Hospital at Bonnyville. There was no change in the number of municipal hospitals during the year.

The shortage of nurses in the province continues to be a very serious problem. Although graduates of the nursing aide school in Calgary have helped alleviate the situation, there was still a need for approximately 300 more nurses at the close of December. The nursing aide school has trained 743 persons since its opening in January 1946 to the end of 1951; of these, 257 were trained during the year, compared to 159 in 1950.

Approved Hospitals.

The approved hospitals in the province as at December 31st are divided as follows:

	1951	1950
Catholic	31	31
Protestant	6	5
Municipal	50	50
Municipally operated	6	6
Industrial	3	3
Service Group	2	2
Lay Corporation	2	2
Provincial	1	1
	<hr/> 101	<hr/> 100

The Isolation Hospitals in Edmonton and Calgary are not listed as separate from the city hospitals, and the hospital at Hythe is not listed as separate from Grande Prairie Municipal Hospital.

Private Hospitals.

There was a further decrease in the number of private hospitals in 1951, there being 10 in operation at December 31st.

Statistics.

The following tables are submitted giving the details of each approved hospital in the province.

Table 1—Bed Capacity, Bed Complement, Patients under Care During Year.

Table 2—Patient Days and Occupancy.

Table 3—Staff.

Table 4—Operating Expenditures.

Table 5—Revenue for Operating Purposes.

Table 6—Distribution of Hospital Costs.

Table 7—Grants Paid Directly to Hospitals.

Table 8—Hospitalization Grant to Local Authorities.

Table 9—Hospitalization of Alberta Population by Age.

The information for hospitals in operation for a part of the year only is given separately at the end of each table. Not included

are the hospitals at Fort Smith, N.W.T., and Lloydminster, Saskatchewan.

For convenient reference, the information in the above tables is herewith presented in summary form, together with corresponding entries for 1950, for comparative purposes.

HOSPITAL BEDS				
	1951		1950	
	Capacity	Complement	Capacity	Complement
Beds and Cribs	5,521	6,239	4,992	5,982
Bassinets	998	1,132	945	1,107
	<u>6,519</u>	<u>7,371</u>	<u>5,937</u>	<u>7,089</u>
Beds per thousand population (excluding Bassinets)	5.9	6.6	5.6	6.7
Patients accommodated per bed per year (excluding newborn) .....	....	27.3	....	27.2

PATIENT DAYS		
	1951	1950
Adults and children	1,558,524	1,468,312
Newborn	219,896	215,799
All patients	<u>1,778,420</u>	<u>1,684,111</u>
Patient Days (excluding newborn) per population	1.6	1.6

PATIENTS UNDER CARE DURING THE YEAR		
	1951	1950
Adults and children	170,517	162,841
Average stay	9.0	8.8
Newborn	26,025	24,612
Average stay	8.6	8.9
Total	196,542	187,453
Average stay	8.9	8.8
Average in hospital daily	4,872	4,611
% of population in hospital daily .....	.52	.52
% of population admitted per year	20.3	20.5

STAFF		
	1951	1950
Administration:		
Executive	111	108
Clerical	349	347
Professional:		
Salaried doctors	40	46
Internes	100	75
Technicians	168	177
Nurses:		
Graduate	1,149	1,104
Student	1,010	995
Probation	252	246
Affiliates	26	70
Dietitians:		
Graduate	27	23
Student	10	8
Orderlies and ward helpers	821	794
Other employees	2,099	1,814
Total Staff	<u>6,162</u>	<u>5,807</u>

BIRTHS		
	1951	1950
Births (excluding Indian) in approved hospitals	25,291	23,875
Total stillbirths	363	329
Percentage of births in approved hospitals to total births in Province (excluding Indian)	94.6	97.9

NURSES IN TRAINING		
	1951	1950
Number of schools	10	10
Number graduated	367	328

FINANCIAL

	1951	1950
Total operating revenue	\$14,676,755.56	\$13,395,415.10
Total operating expenditure	15,060,818.45	13,266,924.74
Revenue per patient per day	9.04	8.63
Cost per patient per day	9.27	8.71
Salaries and wages	49.7%	48.7%
Supplies	34.5%	35.2%
Purchased services	3.0%	3.0%
Insurance	0.8%	0.9%
Depreciation	4.4%	4.5%
Repairs and replacements	3.5%	3.6%
Interest and exchange	2.5%	2.5%
Miscellaneous	1.6%	1.6%

PROVINCIAL GRANTS TO HOSPITALS AND LOCAL AUTHORITIES

	Days	Amount
Per Diem (70c) Grant	1,564,456	\$1,095,119.20
Maternity Grant	203,539	976,345.20
Pensioners Grant	154,127	780,533.90
Extra per Diem Grant	86,157	81,874.25
Hospitalization Grant to Local Authorities	371,571	683,174.05

TABLE No. 1

Hospitals	Bed Capacity		Bed Complement		Patients Under Care During Year						Admissions		Discharges		Deaths		Stillbirths		
	Number		Number		Adults and Children			Newborn			Total		Adults and Children		Newborn				
	Beds	Bassinets	Total	Beds		Bassinets		Total	M.	F.	M.	F.	M.	F.	Adults and Children	Newborn		Adults and Children	Newborn
				Beds	Bassinets														
Athabasca, Municipal	27	7	34	33	9	42	499	689	106	95	605	784	1,389	1,176	196	1,166	188	10	7
Banff, Mineral Springs	42	4	46	62	6	68	362	362	38	32	400	394	794	682	68	690	68	16	2
Barrhead, St. Joseph's	24	7	31	30	10	40	550	805	111	93	661	898	1,559	1,341	204	1,308	197	22	2
Bassano, Municipal	26	6	32	24	6	30	339	440	41	48	380	488	868	767	86	757	87	12	...
Beaverlodge, Municipal	9	6	15	12	6	18	180	283	50	63	230	346	576	461	113	449	111	7	2
Bentley, Municipal	16	7	23	16	7	23	209	299	19	18	228	317	545	498	36	497	36	4	...
Berwyn, Municipal	21	5	26	22	5	27	216	293	39	42	255	335	590	503	79	484	79	8	...
Blairmore, Crow's Nest Pass, Mun.	72	6	78	72	10	82	725	920	122	104	847	1,024	1,871	1,622	223	1,581	219	39	4
Bonnyville, St. Louis	28	5	33	41	8	49	518	751	85	84	603	835	1,438	1,260	166	1,232	156	11	7
Brooks, Municipal	31	7	38	31	8	39	544	805	110	111	654	916	1,570	1,330	219	1,318	214	9	4
Calgary, General	301	60	361	320	60	380	3,976	7,300	1,169	1,094	5,145	8,394	13,539	11,060	2,218	10,717	2,158	311	46
Calgary, Isolation .....	...	...	...	...	...	...	325	324	...	...	325	324	649	620	...	597	...	3	...
Calgary, Holy Cross	371	54	425	371	54	425	4,206	7,352	1,171	1,091	5,377	8,443	13,820	11,355	2,225	11,133	2,188	199	30
Calgary, Junior Red Cross	50	...	50	60	...	60	97	95	...	...	97	95	192	140	...	148	...	...	...
Calgary, Salvation Army Grace ..	25	28	53	25	28	53	...	312	139	144	139	456	595	308	278	306	270	...	6
Camrose, St. Mary's	98	22	120	98	20	118	1,249	1,816	198	214	1,447	2,030	3,477	3,028	402	2,965	397	54	8
Canmore, Canmore	12	4	16	13	4	17	212	230	21	27	233	257	490	436	48	438	47	3	1
Cardston, Municipal	24	6	30	28	9	37	423	696	108	81	531	777	1,308	1,106	185	1,086	181	12	4
Carmanagay, Little Bow Municipal...	14	...	14	19	4	23	126	137	8	5	134	142	276	262	13	253	13	2	...
Castor, Our Lady of the Rosary....	25	8	33	27	8	35	405	593	40	50	445	643	1,088	983	87	970	84	11	2
Cereal, Municipal	9	3	12	11	5	16	90	116	19	11	109	127	236	204	29	194	30	6	...
Claresholm, Municipal	42	6	48	42	6	48	576	672	54	63	630	735	1,365	1,227	114	1,198	114	23	2
Cold Lake, John Neil	15	3	18	20	6	26	135	235	27	28	162	263	425	365	54	358	52	5	...
Consort, Municipal	22	8	30	24	8	32	220	260	29	23	249	283	532	469	52	464	50	...	...
Coronation, Municipal	18	3	21	20	4	24	205	275	45	27	250	302	552	469	72	458	69	6	...
Daysland, Providence	16	...	16	23	5	28	232	263	10	22	242	285	527	489	32	477	30	9	1
Desmarais, St. Martin's	14	2	16	14	2	16	83	179	10	8	93	187	208	262	18	256	18	2	...
Didsbury, Municipal	25	7	32	30	8	38	303	489	55	58	358	547	905	776	111	762	108	19	4
Drumheller, Municipal	65	7	72	65	7	72	1,057	1,506	201	199	1,258	1,705	2,963	2,517	390	2,445	379	54	13

Eckville, Municipal	16	5	21	16	5	21	418	545	47	50	465	595	1,060	948	95	948	95	....	1
Edmonton, Beulah Home	6	2	8	6	2	8	....	133	64	68	64	201	265	125	124	129	124	....	1
Edmonton, General	212	25	237	391	25	416	3,837	5,145	510	491	4,347	5,636	9,983	8,795	986	8,618	971	154	18
(a) T.B. Division .....	....	....	....	....	....	....	150	180	....	....	150	180	330	192	....	171	31	....	....
Edmonton, Misericordia	234	64	298	244	64	308	3,652	6,789	1,125	1,080	4,777	7,869	12,646	10,270	2,168	10,104	2,132	136	28
Edmonton, Royal Alexandra	460	80	540	562	80	642	5,598	9,411	1,637	1,575	7,235	10,986	18,221	14,667	3,155	14,519	3,098	163	20
(a) Isolation .....	....	....	....	....	....	....	407	391	....	....	407	391	798	755	....	760	....	2	....
(b) T.B. Division .....	....	....	....	....	....	....	44	46	....	....	44	46	90	54	....	51	....	4	....
Edmonton, University of Alberta	897	40	937	897	40	937	4,669	5,226	554	498	5,223	5,724	10,947	9,663	1,038	9,393	1,016	225	13
(a) D.V.A. ....	....	....	....	....	....	....	1,302	25	....	....	1,302	25	1,327	1,211	....	1,167	....	54	....
(b) Polio ....	....	....	....	....	....	....	40	42	....	....	40	42	82	76	....	73	....	....	....
(c) T.B. ....	....	....	....	....	....	....	30	....	....	....	30	....	30	10	....	14	....	4	....
Edson, St. John's	37	5	42	37	5	42	471	525	91	94	562	619	1,181	978	179	960	173	13	8
Elk Point, Municipal	26	6	32	46	10	56	636	868	54	62	690	930	1,620	1,488	114	1,449	112	22	2
Elnora, Municipal	16	6	22	17	6	23	105	174	17	19	122	193	315	269	34	263	35	8	1
Empress, Municipal	23	4	27	31	4	35	147	203	31	25	178	228	406	344	56	336	55	5	....
Fairview, Municipal	32	10	42	34	10	44	426	590	86	69	512	659	1,171	999	153	982	152	9	....
Ft. McMurray, St. Gabriel's	28	6	34	29	7	36	281	265	30	25	311	290	601	542	55	531	53	7	2
Ft. Vermilion, St. Theresa	16	4	20	24	6	30	173	223	28	26	201	249	450	369	53	364	51	4	2
Galahad, St. Joseph's	15	5	20	22	6	28	391	506	31	37	422	543	965	889	67	876	65	7	1
Glendon, Municipal	8	7	15	16	7	23	174	257	28	27	202	284	486	425	53	428	55	....	....
Grande Prairie, Municipal	79	20	99	87	20	107	870	1,225	149	148	1,019	1,373	2,392	2,062	291	2,020	285	31	7
Hythe, Sub.-Hosp. ....	....	....	....	....	....	....	115	140	17	19	132	159	291	247	36	249	35	1	....
Hanna, Municipal	35	9	44	41	9	50	373	581	80	62	453	643	1,096	938	141	910	134	28	6
Hardisty, St. Anne's	10	6	16	19	6	25	226	366	41	27	267	393	660	582	64	570	68	11	....
High Prairie, Providence	41	12	53	65	13	78	946	1,318	164	165	1,110	1,483	2,593	2,215	318	2,161	310	46	9
High River, Municipal	57	15	72	44	11	55	569	1,002	122	109	691	1,111	1,802	1,538	229	1,512	223	40	4
Innisfail, Municipal	28	8	36	42	8	50	390	506	74	69	464	575	1,039	880	140	856	136	23	3
Islay, Municipal	10	4	14	7	2	9	144	160	5	16	149	176	325	298	21	283	20	8	....
Jasper, Seton	15	4	19	16	4	20	239	260	40	31	279	291	570	491	70	485	68	6	3
Killam, General	27	6	33	29	8	37	352	574	61	68	413	642	1,055	908	126	893	126	20	2
Lacombe, Municipal	50	16	66	50	16	66	636	988	137	111	773	1,099	1,872	1,591	244	1,549	237	44	6
Lac la Biche, St. Catherine's	23	8	31	25	8	33	429	766	114	114	543	880	1,423	1,174	225	1,165	222	15	4
Lamont, Archer Memorial	95	10	105	95	10	105	1,045	1,575	90	94	1,135	1,669	2,804	2,578	178	2,541	179	39	....
Lethbridge, Galt	86	8	94	111	18	129	1,435	2,203	228	237	1,663	2,440	4,103	3,555	447	3,501	441	66	17
Lethbridge, Isolation	16	....	16	16	....	16	53	30	....	....	53	30	83	81	....	79	....	....	....
Lethbridge, St. Michael's General ...	181	18	199	185	28	213	1,936	3,286	425	413	2,361	3,699	6,060	5,133	822	5,045	805	73	16
Macleod, Municipal	14	6	20	24	6	30	272	319	25	38	297	357	654	583	62	574	63	6	....
McLennan, Sacred Heart	29	4	33	29	4	33	572	871	122	107	694	978	1,672	1,423	224	1,399	220	12	4
Magrath, Municipal	22	8	30	22	8	30	146	286	30	43	176	329	505	421	73	420	70	2	1
Manning, Battle River	12	4	16	15	6	21	243	306	54	41	297	347	644	542	93	533	89	7	3

TABLE No. 1—Continued

Hospitals	Bed Capacity			Bed Complement			Patients Under Care During Year						Admissions		Discharges		Deaths		Stillbirths	
	Number			Number			Adults and Children			Newborn			Adults and Children		Newborn		Adults and Children			Newborn
	Beds	Bassinets	Total	Beds	Bassinets	Total	M.	F.	M.	Newborn		Total	Adults and Children	Newborn	Adults and Children	Newborn	Adults and Children			
										F.	M.							F.		
Mannville, Municipal	15	5	20	22	5	27	222	318	43	47	265	365	532	89	522	87	14	2	3	
Mayerthorpe, Municipal	26	8	34	26	8	34	659	656	69	55	728	711	1,300	123	1,295	123	5	1	1	
Medicine Hat, General	118	10	128	142	35	177	1,564	2,466	371	312	1,935	2,778	3,950	667	3,845	655	107	10	8	
Medicine Hat, Isolation	11	....	11	11	....	11	9	1	....	....	9	1	10	....	10	....	....	....	....
Mundare, General	26	4	30	27	4	31	334	463	31	25	365	488	788	53	779	52	6	4	1	
Myrnam, Municipal	13	3	16	15	5	20	208	335	29	14	237	349	537	43	522	41	12	2	....
Olds, Municipal	31	9	40	34	10	44	403	561	82	87	485	648	945	164	924	167	21	1	....
Oyen, Municipal	17	5	22	17	5	22	185	220	24	19	209	239	402	43	392	43	5	....	....
Peace River, Municipal	37	9	46	44	9	53	695	768	79	96	774	864	1,442	169	1,421	166	20	2	4	
Pincher Creek, St. Vincent's	64	6	70	60	12	72	522	741	55	64	577	805	1,382	117	1,222	115	26	2	....
Ponoka, Municipal	26	10	36	28	9	37	396	688	94	88	490	776	1,069	179	1,051	179	14	2	....
Provost, Municipal	13	5	18	24	5	29	316	465	40	46	356	511	772	84	754	86	13	....	1
Radway, St. Joseph's	14	6	20	20	6	26	338	454	73	60	411	514	780	124	766	129	17	1	....
Raymond, Municipal	18	5	23	18	5	23	160	311	44	52	204	363	464	94	452	88	9	5	....
Red Deer, Municipal	47	11	58	70	19	89	1,067	1,764	238	224	1,305	1,988	2,774	453	2,710	448	62	6	1	
Rimbey, Municipal	19	8	27	19	8	27	339	558	63	57	402	615	886	118	886	117	....	2	....
Rocky Mountain House, Municipal ..	22	6	28	24	6	30	401	455	56	55	457	510	840	107	818	101	21	9	....
Spirit River, Holy Cross	27	4	31	39	11	50	678	937	77	75	755	1,012	1,593	147	1,583	143	20	5	....
Stettler, Municipal	56	8	64	56	8	64	776	1,117	121	151	897	1,268	1,849	260	1,786	258	54	9	....
St. Paul, St. Theresa	45	16	61	66	24	90	776	1,119	138	116	914	1,235	1,868	248	1,843	239	15	11	....
Taber, Municipal	37	8	45	43	12	55	602	857	143	150	745	1,007	1,442	290	1,405	281	15	7	....
Three Hills, Municipal	25	10	35	25	10	35	225	430	50	67	275	497	772	113	633	110	6	2	....
Tofield, Municipal	21	5	26	24	5	29	329	540	52	62	381	602	854	114	843	109	14	3	....
Trochu, St. Mary's	31	6	37	31	6	37	89	235	23	23	112	258	320	45	303	43	11	1	....
Turner Valley, Oilfields General ..	13	6	19	20	8	28	250	312	41	24	291	336	550	62	542	61	10	1	....
Two Hills, Municipal	25	10	35	28	10	38	388	574	53	52	441	626	942	103	934	102	4	....	....
Vegreville, General	85	14	99	85	14	99	787	1,250	83	106	870	1,356	2,007	187	1,956	184	46	3	....
Vermilion, Municipal	44	6	50	44	10	54	388	637	117	75	505	712	1,009	188	988	182	23	5	....

Viking, Municipal	16	4	20	23	7	30	298	381	32	48	330	429	759	669	77	655	75	7	2	...
Vilna, Our Lady's	14	3	17	14	4	18	192	331	48	72	240	403	643	516	118	502	115	9	1	3
Vulcan, Municipal	37	7	44	37	7	44	437	642	59	76	496	718	1,214	1,060	134	1,049	131	10	...	6
Wainwright, Municipal	48	14	62	48	14	62	681	776	101	83	782	859	1,641	1,430	178	1,394	177	26	4	4
Westlock, Immaculata	75	18	93	75	18	93	1,029	1,443	137	146	1,166	1,589	2,755	2,440	281	2,389	267	32	11	5
Wetaskiwin, Community	46	12	58	47	15	62	847	1,304	203	204	1,050	1,508	2,558	2,119	404	2,059	390	55	13	10
Willingdon, General	13	3	16	23	4	27	294	444	25	29	319	473	792	730	54	709	49	11	1	...
Total for hospitals operating full year	5,473	980	6,453	6,176	1,113	7,289	68,888	101,356	13,230	12,753	82,118	114,109	196,227	166,795	25,482	163,530	24,974	2,893	493	363
Hospitals in operation only part of the year:																				
Bonnyville, Kath. H. Prittie	8	5	13	19	5	24	38	42	3	1	41	43	84	80	4	76	4	...	...	...
Cadomin, General	11	3	14	11	3	14	33	35	12	10	45	45	90	67	22	68	21	...	1	...
Nordegg, General	14	5	19	14	5	19	16	5	1	...	17	5	22	21	1	21	1	...	...	...
Smoky Lake, Geo. McDougall	15	5	20	19	6	25	38	66	9	6	47	72	119	100	14	97	14	...	...	...
Grand Total	5,521	998	6,519	6,239	1,132	7,371	69,013	101,504	13,255	12,770	82,268	114,274	196,542	167,063	25,523	163,792	25,014	2,893	494	363
Less D.V.A., Orthopaedic, Polio, and T.B. Division Cases	334	....	334	534	....	534	1,663	388	....	....	1,663	388	2,051	1,683	....	1,624	....	83	....	....
NET TOTAL	5,187	998	6,185	5,705	1,132	6,837	67,350	101,116	13,255	12,770	80,605	113,886	194,491	165,380	25,523	162,168	25,014	2,810	494	363

TABLE No. 2—PATIENT DAYS AND OCCUPANCY

Hospitals	PATIENT DAYS										Occu- pancy
	Patient Days During 1951			Patient Days of Patients Dis- charged or Deceased			Average Stay of Patients Dis- charged or Deceased				
	Adults and Children	Newborn	Total	Adults and Children	Newborn	Total	Adults and Children	Newborn	Total		
Athabasca, Municipal	6,608	1,592	8,200	6,495	1,579	8,074	5.5	8.1	5.8	67.1	
Banff, Mineral Springs	12,406	529	12,935	15,016	547	15,563	21.3	7.8	20.2	80.9	
Barrhead, St. Joseph's	8,343	1,416	9,759	8,033	1,397	9,430	6.0	7.0	6.2	95.2	
Bassano, Municipal	4,642	772	5,414	4,865	769	5,634	6.3	8.8	6.6	48.9	
Beaverlodge, Municipal	3,023	612	3,635	2,982	613	3,595	6.5	5.4	6.3	92.0	
Bentley, Municipal	3,123	307	3,430	3,279	309	3,588	6.5	8.6	6.7	53.5	
Berwyn, Municipal	4,390	733	5,123	4,488	730	5,218	9.1	9.2	9.1	57.3	
Blairmore, Crow's Nest Pass Municipal	12,870	1,613	14,483	13,586	1,625	15,211	8.4	7.3	8.3	49.0	
Bonnyville, St. Louis	9,412	1,327	10,739	9,301	1,297	10,598	7.5	7.9	7.5	92.1	
Brooks, Municipal	9,113	1,361	10,474	9,037	1,349	10,386	6.8	6.2	6.7	80.5	
Calgary, General	102,153	18,389	120,542	103,023	18,369	121,392	9.3	8.3	9.2	103.3	
Calgary, Isolation	11,311	.....	11,311	11,141	.....	11,141	18.6	.....	18.6	.....
Calgary, Holy Cross	105,481	18,780	124,261	106,195	18,944	125,139	9.4	8.5	9.2	77.9	
Calgary, Junior Red Cross	21,268	.....	21,268	21,567	.....	21,567	145.7	.....	145.7	116.5
Calgary, Salvation Army Grace	2,922	2,786	5,708	2,870	2,811	5,681	9.4	10.2	9.8	32.0	
Camrose, St. Mary's	20,170	3,701	23,871	19,543	3,699	23,242	6.5	9.1	6.8	56.4	
Canmore, Canmore	2,806	306	3,112	2,727	310	3,037	6.2	6.5	6.2	64.1	
Cardston, Municipal	6,905	1,654	8,559	6,709	1,645	8,354	6.1	8.9	6.5	78.8	
Carmanagay, Little Bow Municipal	2,256	114	2,370	2,137	114	2,251	8.4	8.8	8.4	44.1	
Castor, Our Lady of the Rosary	5,988	737	6,725	6,019	721	6,740	6.1	8.4	6.3	65.6	
Cereal, Municipal	1,669	251	1,920	1,623	255	1,878	8.1	8.5	8.2	50.8	
Claresholm, Municipal	10,658	1,198	11,856	10,715	1,227	11,942	8.8	10.6	8.9	69.5	
Cold Lake, John Neil	2,041	486	2,527	2,031	468	2,499	5.6	9.0	6.0	37.3	
Consort, Municipal	5,223	536	5,759	4,958	488	5,446	10.7	9.8	10.6	65.0	
Coronation, Municipal	5,010	670	5,680	4,644	663	5,307	10.0	9.6	9.9	76.3	
Daysland, Providence	3,301	242	3,543	3,380	240	3,620	6.9	7.7	7.0	56.5	
Desmarais, St. Martin's	2,826	158	2,984	2,729	158	2,887	10.6	8.8	10.5	55.3	
Didsbury, Municipal	6,542	1,215	7,757	7,056	1,235	8,291	9.0	11.0	9.3	71.7	
Drumheller, Municipal	22,554	3,201	25,755	21,815	3,223	25,038	8.7	8.2	8.7	95.1	
Eckville, Municipal	5,290	766	6,056	5,342	778	6,120	5.6	8.1	5.9	90.6	

Edmonton, Beulah Home	1,880	2,463	4,343	1,930	2,446	4,376	15.0	19.7	17.3	85.8
Edmonton, General	80,426	8,193	88,619	78,956	8,086	87,042	9.0	8.2	8.9	169.6
Edmonton, I.B. Division	50,843	.....	50,843	36,909	.....	36,909	192.2	.....	192.2	.....
Edmonton, Misericordia	79,789	16,861	96,650	79,305	16,782	96,087	7.7	7.7	7.7	93.4
Edmonton, Royal Alexandra	135,683	27,063	162,746	134,055	27,034	161,089	9.1	8.6	9.0	94.7
Edmonton, (a) Isolation	10,657	.....	10,657	10,742	.....	10,742	14.1	.....	14.1	.....
Edmonton, (b) T.B. Division	12,729	.....	12,729	10,978	.....	10,978	200.0	.....	200.0	.....
Edmonton, University of Alberta	126,530	9,279	135,809	123,364	9,279	132,643	12.8	9.0	12.5	88.2
Edmonton, (a) D.V.A.	48,235	.....	48,235	Not available	.....	132,643	Not available	.....	Not available	.....
Edmonton, (b) Folio	3,671	.....	3,671	3,565	.....	3,565	48.8	.....	48.8	.....
Edmonton, (c) T.B.	7,018	.....	7,018	Not available	.....	3,565	Not available	.....	Not available	.....
Edson, St. John's	7,394	1,711	9,105	7,377	1,717	9,094	7.6	9.4	7.9	54.8
Elk Point, Municipal	9,854	959	10,813	9,850	964	10,814	6.7	8.5	6.8	103.8
Elnora, Municipal	2,651	403	3,054	2,811	415	3,226	10.4	11.5	10.5	45.4
Empress, Municipal	3,827	583	4,410	4,005	580	4,585	11.7	10.5	11.6	45.6
Fairview, Municipal	6,229	1,270	7,499	6,119	1,240	7,359	6.2	8.2	6.4	53.3
Ft. McMurray, St. Gabriel's	5,306	448	5,754	4,778	448	5,226	8.9	8.1	8.8	51.9
Ft. Vermilion, St. Theresa	10,497	511	11,008	12,152	517	12,669	33.0	9.8	30.1	179.7
Galahad, St. Joseph's	4,624	661	5,285	4,676	654	5,330	5.3	9.9	5.6	84.5
Glendon, Municipal	2,506	535	3,041	2,528	545	3,073	5.9	9.9	6.4	85.8
Grande Prairie, Municipal	18,349	2,151	20,500	16,857	2,150	19,007	8.2	7.4	8.1	68.5
Hythe, Sub. of Grande Prairie	1,416	266	1,682	1,810	259	2,069	7.2	7.4	7.3	.....
Hanna, Municipal	8,589	1,303	9,892	8,853	1,297	10,150	9.4	9.3	9.4	67.2
Hardisty, St. Anne's	5,270	721	5,991	5,264	750	6,014	9.1	11.0	9.3	144.4
High Prairie, Providence	17,473	2,867	20,340	17,447	2,869	20,316	7.9	9.0	8.0	116.8
High River, Municipal	12,506	1,741	14,247	12,628	1,724	14,352	8.1	7.6	8.1	60.1
Innisfail, Municipal	7,520	1,237	8,757	8,567	1,297	9,864	9.7	9.3	9.7	73.6
Islay, Municipal	2,924	179	3,103	2,928	177	3,105	10.1	8.9	10.0	80.1
Jasper, Seton	3,820	763	4,583	3,942	768	4,710	8.0	10.9	8.4	69.8
Killam, General	7,225	1,241	8,466	7,179	1,262	8,441	7.9	9.9	8.1	73.3
Lacombe, Municipal	13,765	2,116	15,881	13,891	2,105	15,996	8.7	8.7	8.7	75.4
Lac la Biche, St. Catherine's	7,256	1,807	9,063	7,294	1,801	9,095	6.2	8.0	6.5	86.4
Lamont, Archer Memorial	17,646	1,494	19,140	17,092	1,488	18,580	6.6	8.3	6.7	50.9
Lethbridge, Galt	35,144	3,931	39,075	36,964	4,024	40,988	10.4	8.8	10.2	112.0
Lethbridge, Isolation	1,068	.....	1,068	1,038	.....	1,038	13.1	.....	13.1	18.3
Lethbridge, St. Michael's General	42,431	7,431	49,862	43,653	7,343	50,996	8.5	8.9	8.6	64.2
Macleod, Municipal	4,718	527	5,245	4,568	529	5,097	7.9	8.4	7.9	92.3
McLennan, Sacred Heart	9,278	1,669	10,947	9,059	1,659	10,718	6.4	7.4	6.6	87.7
Magrath, Municipal	4,358	692	5,050	4,219	680	4,899	10.0	9.6	9.9	54.3
Manning, Battle River	2,733	717	3,450	2,731	715	3,446	5.1	7.8	5.5	62.4
Mannville, Municipal	4,207	759	4,966	4,282	760	5,042	8.0	8.5	8.1	76.8
Mayerthorpe, Municipal	6,842	1,289	8,131	6,892	1,291	8,183	5.3	10.4	5.7	72.0

TABLE No. 2—PATIENTS DAYS AND OCCUPANCY—Continued

Hospitals	PATIENT DAYS								Occu- pancy	
	Patient Days During 1951			Patient Days of Patients Dis- charged or Deceased		Average Stay of Patients Dis- charged or Deceased				
	Adults and Children	Newborn	Total	Adults and Children	Newborn	Total	Adults and Children	Newborn		Total
Medicine Hat, General	33,251	6,058	39,309	33,029	6,063	39,092	8.4	9.1	77.2	
Medicine Hat, Isolation	79	.....	79	79	.....	79	7.9	.....	2.0
Mundare, General	4,970	447	5,417	5,001	564	5,565	6.4	10.1	52.4	
Myrnam, Municipal	3,266	370	3,636	3,204	370	3,574	6.0	8.6	68.8	
Olds, Municipal	8,374	1,374	9,748	8,194	1,391	9,585	8.7	8.3	74.0	
Oyen, Municipal	2,944	373	3,317	3,079	373	3,452	7.8	8.7	47.4	
Peace River, Municipal	11,118	1,716	12,834	11,201	1,648	12,849	7.8	9.8	82.3	
Pincher Creek, St. Vincent's	9,068	1,054	10,122	9,292	1,045	10,337	7.5	8.9	38.8	
Ponoka, Municipal	7,113	1,383	8,496	7,031	1,379	8,410	6.6	7.6	81.2	
Provost, Municipal	5,248	611	5,859	5,198	621	5,819	6.8	7.2	110.6	
Radway, St. Joseph's	4,205	1,346	5,551	4,282	1,418	5,700	5.5	10.9	82.3	
Raymond, Municipal	2,989	685	3,674	2,892	682	3,574	6.3	7.3	45.5	
Red Deer, Municipal	21,020	4,197	25,217	20,595	4,214	24,809	7.4	9.3	122.5	
Rimbey, Municipal	5,880	993	6,873	5,817	1,002	6,819	6.6	8.4	84.8	
Rocky Mountain House, Municipal	6,189	1,077	7,266	6,174	1,080	7,254	7.4	9.8	77.1	
Spirit River, Holy Cross	10,662	1,457	12,119	10,871	1,457	12,328	6.8	9.8	108.2	
Stettler, Municipal	17,844	2,235	20,079	17,676	2,286	19,962	9.6	8.6	87.3	
St. Paul, St. Theresa	13,053	2,600	15,653	13,260	2,551	15,811	7.1	10.2	79.5	
Taber, Municipal	10,268	2,315	12,583	10,101	2,297	12,398	7.1	8.0	76.0	
Three Hills, Municipal	3,715	996	4,711	3,786	996	4,782	5.9	8.9	40.7	
Tofield, Municipal	5,676	766	6,442	5,733	764	6,497	6.7	6.8	74.1	
Trochu, St. Mary's	2,971	430	3,401	2,754	418	3,172	8.8	9.5	26.3	
Turner Valley, Oilfields General	4,721	599	5,320	4,630	554	5,184	8.4	8.9	99.5	
Two Hills, Municipal	5,957	935	6,892	5,855	922	6,777	6.2	9.0	65.3	
Vegreville, General	18,879	1,706	20,585	18,563	1,710	20,273	9.3	9.1	60.9	
Vermilion, Municipal	7,393	1,773	9,166	7,748	1,773	9,521	7.7	9.5	46.0	
Viking, Municipal	5,039	704	5,743	5,039	710	5,749	7.6	9.2	86.3	
Vilna, Our Lady's	3,369	1,209	4,578	3,358	1,200	4,558	6.6	10.3	65.9	
Vulcan, Municipal	7,586	1,179	8,765	7,648	1,165	8,813	7.2	8.9	56.2	
Wainwright, Municipal	13,691	1,737	15,428	13,439	1,757	15,196	9.5	9.7	78.1	

Westlock, Immaculata	16,348	2,560	18,908	16,279	2,545	18,824	6.7	9.2	7.0	59.7
Wetaskiwin, Community	13,677	2,874	16,551	13,549	2,831	16,380	6.4	7.0	6.5	81.5
Willingdon, General	5,200	473	5,673	5,063	459	5,522	7.0	9.2	7.2	109.6
Total for hospitals operating full year	1,556,954	219,525	1,776,479	*1,484,984	219,463	*1,704,447	*9.0	8.6	*8.9	77.9
Hospitals in Operation for only part of the year:										
Bonnyville, Kath. H. Prittie	508	33	541	496	33	529	6.5	8.2	6.6	17.4
Cadomin, General	335	188	523	371	188	559	5.5	8.5	6.2	10.0
Nordegg, General	90	26	116	90	26	116	4.3	26.0	5.3	3.0
Smoky Lake, George McDougall	637	124	761	634	123	757	6.5	8.8	6.8	23.3
Grand Total.....	1,558,524	219,896	1,778,420	*1,486,575	219,833	*1,706,408	*9.0	8.6	*8.9	77.3
Less D.V.A., Orthopaedic, Polio and T.B. Division cases	143,764	.....	143,764	*73,019	.....	*73,019	42.8	.....	42.8	.....
NET TOTAL	1,414,760	219,896	1,634,656	1,413,556	219,833	1,633,389	8.6	8.6	8.6	74.7

*Does not include D.V.A. and T.B. Division of University Hospital (not available).

TABLE No. 3—STAFF

Hospital	Administ'n		Professional			Nurses				Dietitians		Others		Total	Medical Staff	No. of Doctors	Training School	Affiliation with other institutions	Graduated during the year
	Executive	Clerical	Salaried Doctors	Internes	Technicians	Graduate	Student	Probationers	Affiliates	Graduate	Student	Orderlies and Ward Helpers	All Other Employees						
Athabasca, Municipal	...	1	...	...	...	6	...	...	...	...	...	8	3	18	Yes	2	No	No	...
Banff, Mineral Springs	1	3	1	...	4	11	...	...	...	...	...	6	17	43	Yes	5	No	No	...
Barrhead, St. Joseph's	1	2	...	...	...	5	...	...	...	...	...	10	10	28	No	...	No	No	...
Bassano, Municipal	1	...	...	...	...	6	...	...	...	...	...	3	4	14	No	...	No	No	...
Beaverlodge, Municipal	...	1	...	...	...	4	...	...	...	...	...	2	5	12	No	...	No	No	...
Bentley, Municipal	...	1	...	...	...	5	...	...	...	...	...	1	2	9	No	...	No	No	...
Berwyn, Municipal	1	...	...	...	...	1	...	...	...	...	...	4	3	9	No	...	No	No	...
Blairmore, Crows Nest Pass Municipal	1	2	...	...	...	11	...	...	...	...	...	10	21	45	No	...	No	No	...
Bonnyville, St. Louis	...	...	...	...	...	4	...	...	...	...	...	10	11	25	No	...	No	No	...
Brooks, Municipal	3	1	...	...	...	11	...	...	...	...	...	8	11	34	No	...	No	No	...
Calgary, General	4	35	2	2	12	90	129	...	1	3	...	12	155	445	Yes	175	Yes	Yes	58
Calgary, Holy Cross	4	38	3	5	17	73	157	34	...	1	...	25	183	540	Yes	101	Yes	Yes	58
Calgary, Junior Red Cross	1	1	2	...	3	16	...	...	...	1	...	6	11	41	Yes	17	No	No	...
Calgary, Salvation Army Grace	1	1	...	...	...	4	...	...	...	...	...	2	3	11	Yes	11	No	No	...
Camrose, St. Mary's	1	5	...	...	4	19	...	...	...	...	...	23	25	77	Yes	11	No	No	...
Canmore, Canmore	1	1	...	...	...	4	...	...	...	...	...	...	2	8	Yes	3	No	No	...
Cardston, Municipal	1	1	...	...	...	8	...	...	...	...	...	1	7	18	No	...	No	No	...
Carmanagay, Little Bow Municipal	1	...	1	...	...	1	...	...	...	1	...	6	2	12	No	...	No	No	...
Castor, Our Lady of the Rosary	1	1	...	...	2	6	...	...	...	...	...	4	8	22	Yes	2	No	No	...
Cereal, Municipal	...	1	...	...	...	2	...	...	...	...	...	4	1	8	No	...	No	No	...
Clareholm, Municipal	1	1	...	...	1	9	...	...	...	...	...	5	9	26	No	...	No	No	...
Cold Lake, John Neil	...	...	...	...	...	3	...	...	...	...	...	5	...	8	No	...	No	No	...
Consort, Municipal	1	1	...	...	...	3	...	...	...	...	...	3	6	14	No	...	No	No	...
Coronation, Municipal	1	1	...	...	...	4	...	...	...	...	...	4	4	14	No	...	No	No	...
Daysland, Providence	1	1	...	...	2	3	...	...	...	...	...	4	8	19	No	...	No	No	...
Desmarais, St. Martin's	...	...	...	...	...	1	...	...	...	...	...	...	2	3	No	...	No	No	...
Didsbury, Municipal	1	1	...	...	1	6	...	...	...	...	...	5	7	21	No	...	No	No	...
Drumheller, Municipal	1	3	...	...	3	20	...	...	...	1	...	20	27	75	Yes	10	No	No	...
Eckville, Municipal	1	1	...	...	...	3	...	...	...	...	...	4	5	14	No	...	No	No	...
Edmonton, Beulah Home	1	1	...	...	...	3	...	...	5	...	...	...	3	13	No	...	No	No	...

Edmonton, General	4	26	3	9	22	60	106	34	2	2	1	47	108	424	Yes	263	Yes	Yes	46
Edmonton, Misericordia	4	15	4	12	11	72	106	34	...	2	1	32	109	402	Yes	105	Yes	Yes	43
Edmonton, Royal Alexandra	2	50	3	29	26	116	147	34	6	3	...	70	238	724	Yes	200	Yes	Yes	54
Edmonton, University of Alberta	5	63	16	42	20	79	210	68	5	6	7	93	365	979	Yes	116	Yes	Yes	44
Edson, St. John's .....	...	2	...	...	...	6	...	...	...	...	...	2	9	19	No	...	No	No	...
Elk Point, Municipal	1	1	...	...	...	5	...	...	...	...	...	7	8	22	No	...	No	No	...
Elnora, Municipal .....	...	1	...	...	...	4	...	...	...	...	...	2	3	10	No	...	No	No	...
Empress, Municipal .....	...	1	...	...	...	2	...	...	...	...	...	6	4	13	No	...	No	No	...
Fairview, Municipal .....	...	1	...	...	...	6	...	...	...	...	...	6	4	17	No	...	No	No	...
Ft. McMurray, St. Gabriel's	2	1	...	...	...	1	...	...	...	...	...	3	6	13	No	...	No	No	...
Ft. Vermilion, St. Theresa	1	1	...	...	...	2	...	...	...	...	...	7	8	19	Yes	2	No	No	...
Galahad, St. Joseph's	1	1	...	...	...	3	...	...	...	...	...	3	6	14	No	...	No	No	...
Glendon, Municipal .....	...	1	...	...	...	2	...	...	...	...	...	4	5	12	No	...	No	No	...
Grande Prairie, Municipal	1	2	...	...	2	11	...	...	1	...	...	6	20	43	Yes	5	No	No	...
Hanna, Municipal .....	...	1	...	...	1	11	...	...	...	...	...	4	12	29	Yes	3	No	No	...
Hardisty, St. Anne's	1	1	...	...	...	4	...	...	...	...	...	4	2	12	No	...	No	No	...
High Prairie, Providence	1	3	...	...	...	7	...	...	...	...	...	19	21	51	No	...	No	No	...
High River, Municipal	1	1	...	...	...	17	...	...	...	...	...	...	14	33	No	...	No	No	...
Innisfail, Municipal .....	...	1	...	...	...	5	...	...	...	...	...	1	16	23	Yes	4	No	No	...
Islay, Municipal	1	...	...	...	...	3	...	...	...	...	...	1	4	9	No	...	No	No	...
Jasper, Seton	1	1	...	...	...	3	...	...	...	1	...	1	3	10	No	...	No	No	...
Killam, General	1	1	...	...	...	6	...	...	...	...	...	3	6	17	No	...	No	No	...
Lac la Biche, St. Catherine's	1	...	...	...	...	3	...	...	...	...	...	4	8	16	No	...	No	No	...
Lacombe, Municipal	1	1	...	...	2	15	...	...	...	...	...	7	18	44	No	...	No	No	...
Lamont, Archer Memorial	1	6	...	...	2	10	34	...	...	1	...	...	36	90	Yes	5	Yes	Yes	15
Lethbridge, Galt	4	6	1	...	5	19	61	17	...	1	...	15	30	159	Yes	40	Yes	Yes	17
Lethbridge, Isolation .....	...	...	...	...	...	1	...	...	...	...	...	1	1	3	No	...	No	No	...
Lethbridge, St. Michael's General	7	7	2	1	9	55	...	...	1	...	1	36	66	185	Yes	42	No	No	...
Macleod, Municipal .....	...	1	...	...	...	6	...	...	...	...	...	4	8	19	No	...	No	No	...
McLennan, Sacred Heart .....	...	1	...	...	...	5	...	...	...	...	...	7	12	25	No	...	No	No	...
Magrath, Municipal .....	...	1	...	...	...	6	...	...	...	...	...	3	4	14	No	...	No	No	...
Manning, Battle River .....	...	1	...	...	...	3	...	...	...	...	...	6	5	15	No	...	No	No	...
Mannville, Municipal .....	...	...	...	...	...	4	...	...	...	...	...	4	3	11	No	...	No	No	...
Mayerthorpe, Municipal	1	1	...	...	1	2	...	...	...	...	...	5	7	17	No	...	No	No	...
Medicine Hat, General	2	8	...	...	3	30	29	11	...	1	...	19	58	161	Yes	16	Yes	Yes	19
Mundare, General	1	1	...	...	...	4	...	...	...	...	...	3	8	17	No	...	No	No	...
Myrnam, Municipal .....	...	1	...	...	...	3	...	...	...	...	...	4	4	13	Yes	3	No	No	...
Olds, Municipal	1	1	...	...	...	5	1	...	...	...	...	6	9	23	No	...	No	No	...
Oyen, Municipal	1	1	1	...	...	3	...	...	...	...	...	1	3	10	No	...	No	No	...
Peace River, Municipal	1	1	...	...	...	9	...	...	...	...	...	10	10	30	No	...	No	No	...

TABLE No. 3—Continued

Hospital	Administ'n		Professional			Nurses				Dietitians		Others		Total	Medical Staff	No. of Doctors	Training School	Affiliation with other Institutions	Graduated during the year
	Executive	Clerical	Salaried	Internes	Technicians	Graduate	Student	Probationers	Affiliates	Graduate	Student	Orderlies and Ward Helpers	All Other Employees						
Pincher Creek, St. Vincent's	1	1	...	...	...	5	...	...	...	...	...	9	10	26	Yes	4	No	No	...
Ponoka, Municipal	1	...	...	...	...	8	...	...	...	...	...	4	11	24	Yes	6	No	No	...
Provost, Municipal .....	...	...	...	...	...	8	...	...	...	...	...	6	6	20	No	...	No	No	...
Radway, St. Joseph's	1	1	...	...	...	4	...	...	...	...	...	3	7	16	No	...	No	No	...
Raymond, Municipal	1	...	...	...	...	4	...	...	...	...	...	2	5	12	No	...	No	No	...
Red Deer, Municipal	2	3	1	...	2	25	...	...	...	1	...	16	17	67	Yes	12	No	No	...
Rimbey, Municipal	1	1	...	...	...	4	...	...	...	...	...	3	11	20	No	...	No	No	...
Rocky Mountain House, Municipal	1	1	...	...	...	3	...	...	...	...	...	7	9	21	Yes	5	No	No	...
Spirit River, Holy Cross .....	...	1	...	...	...	4	...	...	5	...	...	10	7	27	No	...	No	No	...
Stettler, Municipal	2	1	...	...	2	15	...	...	...	...	...	18	17	55	Yes	6	No	No	...
St. Paul, St. Theresa	3	3	...	...	...	7	...	...	...	...	...	14	16	43	No	...	No	No	...
Taber, Municipal	3	1	...	...	1	12	...	...	...	...	...	9	14	40	No	...	No	No	...
Three Hills, Municipal	1	...	...	...	...	5	...	...	...	...	...	6	6	18	No	...	No	No	...
Tofield, Municipal .....	...	...	...	...	...	5	...	...	...	...	...	3	6	14	No	...	No	No	...
Trochu, St. Mary's	1	1	...	...	...	2	...	...	...	...	...	4	4	12	No	...	No	No	...
Turner Valley, Oilfields General ..	...	1	...	...	...	6	...	...	...	...	...	3	6	16	No	...	No	No	...
Two Hills, Municipal	1	...	...	...	1	6	...	...	...	...	...	3	8	19	No	...	No	No	...
Vegreville, General	3	4	...	...	3	10	30	20	...	...	...	6	16	92	Yes	7	Yes	Yes	13
Vermilion, Municipal	1	1	...	...	...	8	...	...	...	...	...	3	7	20	No	...	No	No	...
Viking, Municipal	1	1	...	...	...	4	...	...	...	...	...	5	7	18	No	...	No	No	...
Vilna, Our Lady's	1	1	...	...	2	3	...	...	...	...	...	...	7	14	No	...	No	No	...
Vulcan, Municipal	1	1	...	...	1	8	...	...	...	...	...	5	7	23	No	...	No	No	...
Wainwright, Municipal	1	1	...	...	2	11	...	...	...	...	...	2	19	36	No	...	No	No	...
Westlock, Immaculata	1	4	...	...	...	8	...	...	...	...	...	16	31	60	No	...	No	No	...
Wetaskiwin, Community	1	1	...	...	1	12	...	...	...	...	...	7	12	34	Yes	4	No	No	...
Willingdon, General	1	1	...	...	...	4	...	...	...	...	...	2	6	14	No	...	No	No	...
Total	109	348	40	100	168	1,141	1,010	252	24	27	10	817	2,088	6,134	...	...	...	...	367

TABLE No. 4—OPERATING EXPENDITURES

Hospitals	Salaries and Wages	Supplies	Purchased Services	Insurance	Deprecia- tion	Repairs and Replac- ements	Interest and Exchange	Miscel- laneous	Total Expenditure
Athabasca, Municipal	\$ 24,924.58	\$ 18,753.76	\$ 3,050.05	\$ 497.10	\$ 3,044.88	\$ 219.52	\$ 11,387.40	\$ 4,521.97	\$ 66,399.26
Banff, Mineral Springs	78,263.16	55,100.67	4,807.84	1,524.44	3,126.47	2,304.90	81.22	1,149.59	146,358.29
Barrhead, St. Joseph's	42,378.69	24,987.39	2,601.31	325.00	1,470.95	2,669.54	28.63	501.46	74,962.97
Bassano, Municipal	19,395.61	13,448.85	4,005.88	213.46	2,387.23	4,722.66	145.20	559.62	44,878.51
Beaverlodge, Municipal	12,827.45	10,943.50	1,175.99	188.78	1,844.35	1,193.94	218.15	136.62	28,528.78
Bentley, Municipal	13,332.27	11,313.88	1,685.99	340.00	3,582.69	692.15	2,701.61	.....	33,648.59
Berwyn, Municipal	12,640.00	10,070.63	2,137.53	370.39	.....	568.52	2,292.67	680.89	28,760.63
Blairmore, Crow's Nest Pass Municipal	70,644.41	44,074.73	3,985.78	1,271.63	19,331.30	93.53	9,973.27	456.13	149,830.78
Bonnyville, St. Louis	28,705.67	12,679.92	1,322.54	.....	3,031.79	1,121.71	10.20	600.15	47,471.98
Brooks, Municipal	43,323.25	35,181.19	3,625.56	570.44	3,750.00	7,942.49	2,584.32	3,663.40	100,640.65
Calgary, General	621,727.50	408,045.11	19,815.40	6,463.90	.....	32,332.07	10,031.20	35,759.28	1,134,174.46
Calgary, Holy Cross	575,662.84	370,803.12	20,034.41	5,895.12	97,366.73	38,253.95	12,764.38	23,444.75	1,144,225.30
Calgary, Junior Red Cross	91,604.82	37,266.08	4,267.28	867.00	.....	602.71	.....	644.73	135,252.62
Calgary, Salvation Army Grace	16,026.36	11,295.63	712.95	195.48	770.34	1,025.04	.....	1,853.09	31,878.89
Camrose, St. Mary's	89,679.63	62,392.11	7,711.09	1,340.13	20,508.00	2,399.42	17,508.89	973.54	202,512.81
Cardston, Municipal	28,689.35	28,419.99	2,703.06	398.60	2,465.78	6,165.87	348.91	484.57	69,676.13
Carmangay, Little Bow Municipal	20,000.46	9,110.70	1,259.07	145.00	.....	910.80	33.40	126.05	31,585.48
Castor, Our Lady of the Rosary	11,350.00	23,563.77	1,662.74	634.65	1,600.00	2,175.51	.....	156.26	41,142.93
Cereal, Municipal	10,794.55	8,297.55	1,193.68	21.95	1,977.53	954.51	81.07	265.00	23,585.84
Ciaresholm, Municipal	37,670.50	27,264.52	2,599.06	554.26	5,261.94	1,944.58	2,093.60	9,805.09	87,193.55
Cold Lake, John Neil	10,090.93	5,554.54	833.96	100.00	468.63	1,717.27	3.20	230.15	18,998.68
Consort, Municipal	16,899.36	13,866.43	2,608.69	414.25	7,100.00	1,085.74	1,852.55	274.51	44,101.53
Coronation, Municipal	16,887.30	13,990.66	1,504.76	213.39	2,195.21	1,458.14	12.58	879.10	37,141.14
Daysland, Providence	23,733.30	11,972.81	1,403.78	139.75	4,923.00	1,419.30	.....	160.15	43,752.09
Desmarais, St. Martin's	5,340.00	6,420.00	675.00	46.15	400.00	.....	.....	30.00	12,911.15
Didsbury, Municipal	30,276.00	27,205.79	2,282.63	471.19	6,838.01	2,694.26	3,348.45	1,430.72	74,547.05
Drumheller, Municipal	105,984.81	84,086.97	8,244.97	1,401.38	5,711.79	14,711.43	321.38	4,426.21	224,888.94
Eckville, Municipal	21,605.79	22,170.26	3,106.21	606.59	4,358.10	1,001.79	2,152.60	591.25	55,592.59
Edmonton, General	519,353.99	274,037.99	10,925.27	11,934.23	72,174.03	21,528.62	5,659.16	17,065.31	932,678.60
Edmonton, Misericordia	356,264.32	298,719.61	17,968.62	4,422.38	50,113.94	38,583.44	13,402.85	6,031.80	785,506.96
Edmonton, Royal Alexandra	977,097.98	593,569.77	29,270.65	43,706.17	23,018.89	82,000.00	28,342.36	14,549.41	1,791,555.23
Edmonton, University of Alberta	1,270,498.25	746,654.88	39,477.77	7,238.07	.....	59,913.84	117,624.95	22,763.06	2,264,170.82
Edson, St. John's	35,266.90	14,753.21	1,850.09	361.00	4,921.80	4,826.13	36.54	401.96	62,417.63
Elk Point, Municipal	23,462.75	24,683.55	3,339.28	409.91	.....	1,620.06	93.46	627.00	54,236.01
Elnora, Municipal	14,323.43	7,330.31	1,439.57	10.00	.....	784.94	4,909.84	2,236.50	31,034.59

Empress, Municipal	14,761.81	13,878.55	1,430.04	69.91	.....	1,197.94	40.01	326.10	31,704.36
Fairview, Municipal	21,094.79	18,701.93	4,301.79	414.50	2,800.00	2,852.09	2,700.00	924.10	53,789.20
Ft. McMurray, St. Gabriel's	25,361.12	13,129.03	1,707.25	50.00	3,781.00	329.85	2,984.47	1,772.26	49,114.98
Fort Vermilion. St. Theresa	16,515.19	17,766.13	2,781.33	170.00	4,949.85	1,888.53	252.35	50.00	44,373.38
Galahad, St. Joseph's	26,129.15	10,959.54	892.62	262.64	1,580.15	1,804.72	634.19	80.50	42,343.51
Glendon, Municipal	12,141.50	8,732.61	2,781.15	278.32	.....	1,058.34	3,000.40	489.00	28,481.32
Grande Prairie, Municipal	60,197.06	60,715.91	6,515.27	1,323.66	17,057.07	3,934.71	2,344.10	10,870.82	162,958.60
Hanna, Municipal	39,720.50	34,006.48	2,727.34	703.84	2,207.57	4,721.45	360.19	480.69	84,928.06
Hardisty, St. Anne's	26,688.64	15,219.03	1,527.30	400.00	2,334.00	2,635.32	43.77	377.27	49,225.33
High Prairie, Providence	49,911.72	48,429.80	3,673.72	582.52	4,830.78	1,228.83	1,300.00	1,567.69	111,525.06
High River, Municipal	50,655.83	37,531.71	4,327.07	517.76	4,570.00	2,666.15	1,119.16	736.43	102,124.11
Innisfail, Municipal	28,245.03	28,288.97	2,972.70	472.42	.....	2,232.53	113.09	216.10	62,540.84
Islay, Municipal	11,059.87	7,079.59	1,314.19	182.37	1,091.75	95.27	3.91	3,406.82	24,233.77
Jasper, Seton	21,126.10	9,662.47	1,031.89	39.00	3,153.13	2,397.19	.....	490.10	37,899.88
Killam, General	31,825.80	18,974.89	1,311.82	375.00	3,677.21	1,466.27	2,153.22	295.80	60,080.01
Lacombe, Municipal	55,687.65	49,547.92	6,227.95	1,105.79	11,261.87	2,346.59	4,485.11	2,763.30	133,426.18
Lac la Biche, St. Catherine's	26,040.00	16,313.77	2,974.24	191.13	1,840.15	566.32	2.45	618.14	48,546.20
Lamont, Archer Memorial	81,012.28	62,176.17	7,741.16	.....	10,230.85	3,743.92	2,161.21	3,326.71	170,392.30
Lethbridge, Galt	127,178.37	148,870.96	8,955.79	697.60	1,575.24	9,269.55	438.47	2,539.65	299,525.63
Lethbridge, St. Michael's General	183,585.33	150,696.80	12,881.60	1,233.00	16,909.33	9,197.47	12,026.66	2,766.11	389,296.30
Macleod, Municipal	26,223.76	23,395.63	3,407.29	400.08	2,957.58	2,242.01	805.00	896.56	60,327.91
McLennan, Sacred Heart	30,135.07	26,268.61	4,326.06	407.47	3,099.58	4,322.15	369.25	2,274.12	71,202.31
Magrath, Municipal	21,064.87	15,372.92	2,591.71	283.30	3,507.71	1,357.33	3,803.93	727.31	48,709.08
Manning, Battle River	11,624.25	13,697.09	1,725.16	133.50	1,630.69	812.74	3.66	555.82	30,182.91
Mannville, Municipal	17,795.78	14,341.39	2,430.29	230.50	1,641.72	478.79	2.40	2,430.50	39,351.37
Mayerthorpe, Municipal	23,581.20	32,949.70	4,304.03	503.54	7,150.45	1,406.38	4,476.48	25.00	74,396.78
Medicine Hat, General	172,991.43	114,692.32	36,623.89	1,810.97	.....	5,826.65	1,971.84	3,503.11	337,420.21
Mundare, General	13,925.89	11,779.07	1,403.63	137.59	1,921.87	3,845.26	4.70	5,078.46	38,096.47
Myrnam, Municipal	23,023.45	13,009.88	2,936.87	264.42	2,827.15	2,176.99	.....	618.25	44,857.01
Olds, Municipal	31,256.05	28,122.40	4,795.66	593.35	9,835.89	1,225.18	4,256.61	2,509.52	82,594.66
Oyen, Municipal	12,681.59	10,412.15	804.35	187.26	1,744.11	1,435.85	692.86	25.00	27,983.17
Peace River, Municipal	40,884.25	38,508.38	4,214.90	1,230.38	11,116.00	3,299.77	2,527.94	910.60	102,692.22
Pincher Creek, St. Vincent's	28,763.98	17,780.86	1,642.41	442.00	650.00	3,584.74	560.00	854.53	54,278.52
Ponoka, Municipal	36,125.72	22,089.59	3,594.64	1,423.94	9,006.80	2,834.29	4,008.06	73.00	79,156.04
Provost, Municipal	24,943.25	21,651.42	2,733.09	322.77	1,562.42	2,528.47	35.30	171.50	53,948.22
Radway, St. Joseph's	14,087.05	14,941.90	1,465.13	230.25	4,846.98	162.89	10.87	178.93	35,924.00
Raymond, Municipal	15,068.59	12,514.20	1,582.42	176.14	1,625.96	1,327.65	1,560.45	520.71	34,376.12
Red Deer, Municipal	97,855.20	69,357.92	12,048.52	1,344.55	8,982.10	3,572.71	14,691.94	1,617.70	209,470.64
Rimbey, Municipal	26,272.94	21,855.50	2,022.70	1,390.72	8,926.32	2,336.78	5,357.72	1,808.20	69,970.88
Rocky Mountain House, Municipal	21,607.53	17,703.91	3,123.48	377.81	1,744.50	4,087.25	968.13	37.50	49,650.11
Smoky Lake, George McDougall	9,730.78	6,550.30	701.86	127.92	4,621.62	1,380.26	130.48	290.35	23,533.57

TABLE No. 4—OPERATING EXPENDITURES—Continued

Hospitals	Salaries and Wages	Supplies	Purchased Services	Insurance	Deprecia- tion	Repairs and Replace- ments	Interest and Exchange	Miscel- laneous	Total Expenditure
Spirit River, Holy Cross	\$ 33,900.03	\$ 26,417.23	\$ 2,353.28	\$ 144.26	\$ 850.00	\$ 3,787.90	\$ 50.00	\$ 5,958.85	\$ 73,461.55
Stettler, Municipal	69,317.07	67,773.77	4,508.38	1,110.28	13,099.83	1,648.65	5,674.48	1,070.70	164,203.16
St. Paul, St. Theresa	50,031.11	27,391.54	2,837.52	690.30	5,123.08	9,673.84	1,539.14	642.45	97,928.98
Taber, Municipal	41,964.39	27,346.14	3,062.37	170.00	5,570.24	6,669.08	2,154.25	648.60	87,585.07
Three Hills, Municipal	26,785.45	18,035.69	4,693.82	516.82	9,964.06	3,641.33	3,659.65	614.60	67,911.42
Tofield, Municipal	19,810.04	21,044.77	1,433.68	565.92	7,611.01	2,373.26	4,309.16	.....	57,147.84
Trochu, St. Mary's	16,730.15	12,246.25	1,063.42	329.74	11,001.07	789.54	4,150.95	332.43	46,643.55
Turner Valley, Oilfields General	18,349.96	19,591.80	1,724.67	86.67	727.67	688.98	143.56	1,116.83	42,430.14
Two Hills, Municipal	27,445.75	21,738.56	2,824.60	513.53	7,166.29	1,156.71	4,387.12	372.62	65,605.18
Vegreville, General	50,416.80	54,009.87	11,755.22	1,704.41	17,352.96	3,120.48	2,024.96	1,003.41	141,388.11
Vermilion, Municipal	27,168.70	20,611.17	2,924.12	376.85	4,902.91	1,703.68	180.13	583.50	58,451.06
Viking, Municipal	21,743.31	18,291.18	1,945.64	322.38	821.19	1,831.30	107.44	1,062.35	46,124.79
Vilna, Our Lady's	18,403.96	8,251.04	422.13	50.00	1,360.00	1,798.98	4.98	425.97	30,717.06
Vulcan, Municipal	32,337.74	25,502.96	3,491.07	779.84	8,764.69	3,030.64	2,759.35	.....	76,666.29
Wainwright, Municipal	46,578.93	41,669.26	4,476.29	911.74	16,188.55	4,004.00	7,327.09	809.22	121,965.08
Westlock, Immaculata	34,296.16	46,940.86	5,065.98	1,147.97	4,661.44	35,350.52	6,152.15	1,252.47	134,867.55
Wetaskiwin, Community	49,989.71	35,806.86	5,958.23	527.20	7,020.91	1,851.30	15.06	530.34	101,699.61
Willingdon, General	15,492.80	12,572.94	603.99	218.95	1,918.50	1,095.74	1.87	3,244.54	35,149.33
Total.....	\$7,486,068.64	\$5,190,949.17	\$ 452,987.18	\$ 124,546.57	\$ 661,097.18	\$ 531,731.49	\$ 377,085.76	\$ 236,352.46	\$15,060,818.45

Not Available: Bonnyville, Katherine H. Prittie; Cadomin, General; Canmore, Canmore; Edmonton, Beulah Home; Lethbridge, Isolation and Nordegg, General.

TABLE No. 5—REVENUE FOR OPERATING PURPOSES

Hospitals	Day Rate Services	Special Services	Gross Earnings	Deductions	Net Earnings	Grants	Out-Patient Earnings	Total Operating Revenue	Other Revenue	Total Revenue
Athabasca, Municipal	\$ 40,728.00	\$ 9,399.20	\$ 50,127.20	\$ 31,106.78	\$ 19,020.42	\$ 46,194.06	\$ 17,194.20	\$ 65,214.48	\$ 1,356.47	\$ 66,570.95
Banff, Mineral Springs	81,955.45	28,076.18	110,031.63	7,640.02	102,391.61	6,152.30	15.26	125,738.11	15.26	125,753.37
Barrhead, St. Joseph's	39,020.30	23,788.99	62,809.29	13,231.50	49,577.79	6,753.60	.....	56,331.39	383.02	56,714.41
Bassano, Municipal	21,490.00	7,409.70	28,899.70	18,187.10	10,712.60	25,058.95	686.85	36,458.40	2,067.50	38,525.90
Beaverlodge, Municipal	8,102.30	3,512.33	11,614.63	861.73	10,752.90	16,789.70	2,144.25	29,686.85	461.99	30,148.84
Bentley, Municipal	13,898.50	7,791.19	21,689.69	9,139.10	12,550.59	24,636.76	.....	37,187.35	983.45	38,170.80
Berwyn, Municipal	28,544.60	4,071.05	32,615.65	17,787.80	14,827.85	21,273.46	372.70	36,474.01	1,003.10	37,477.11
Blairmore, Crow's Nest Pass Municipal	67,067.75	34,414.90	101,482.65	39,649.04	61,833.61	89,618.55	.....	151,452.16	8,585.10	160,037.26
Bonnyville, St. Louis	46,316.20	10,104.25	56,420.45	11,343.33	45,077.12	6,742.00	822.30	52,641.42	73.09	52,714.51
Brooks, Municipal	43,097.16	24,408.89	67,506.05	32,779.91	34,726.14	65,009.20	1,215.00	100,950.34	.....	100,950.34
Calgary, General	671,500.15	308,811.28	980,311.43	267,623.73	712,687.70	304,616.80	10,287.28	1,027,591.78	.....	1,027,591.78
Calgary, Holy Cross	716,836.98	415,066.99	1,131,903.97	178,294.94	953,609.03	90,756.10	23,163.62	1,067,528.75	8,928.17	1,076,456.92
Calgary, Junior Red Cross	13,931.95	Not Available	16,291.50	2,946.50	Not Available	19,841.91	.....	33,186.91	.....	157,717.90
Calgary, Salvation Army Grace Camrose, St. Mary's	115,877.15	2,359.55 70,149.89	186,027.04	21,519.53	164,507.51	16,356.90	.....	180,864.41	269.19	33,186.91 181,133.60
Cardston, Municipal	33,975.60	7,394.30	41,369.90	20,660.48	20,709.42	52,638.63	2,255.25	75,603.30	20.64	75,623.94
Carmangay, Little Bow Muni- cipal	10,104.25	2,228.15	12,332.40	5,531.65	6,800.75	27,935.80	.....	34,736.55	240.93	34,977.48
Castor, Our Lady of the Rosary	25,752.45	7,447.00	33,199.45	4,589.30	28,610.15	4,667.60	.....	33,277.75	9,450.00	42,727.75
Cereal, Municipal	7,579.00	1,490.84	9,069.84	2,791.00	6,278.84	13,511.85	526.60	20,317.29	69.12	20,386.41
Claresholm, Municipal	56,321.77	9,839.62	66,161.39	29,506.30	36,655.09	49,681.56	2,329.50	88,666.15	1,385.00	90,051.15
Cold Lake, John Neil	8,627.50	1,749.62	10,377.12	1,948.60	8,428.52	756.00	.....	9,184.52	700.41	9,884.93
Consort, Municipal	25,376.50	4,101.10	29,477.60	14,276.10	15,201.50	32,116.07	1,686.30	49,003.87	307.81	49,311.68
Coronation, Municipal	22,372.00	5,323.76	27,695.76	12,162.05	15,533.71	24,239.15	.....	39,772.86	1,024.00	40,796.86
Daysland, Providence	15,903.50	10,154.45	26,057.95	2,082.86	23,975.09	2,568.40	.....	26,543.49	1,810.01	28,353.50
Desmarais, St. Martin's	12,614.80	586.50	13,201.30	7,911.95	5,289.35	599.20	.....	5,888.55	7,621.80	13,510.35
Didsbury, Municipal	30,740.25	12,819.48	43,559.73	16,721.15	26,838.58	46,439.05	3,046.20	76,323.83	133.13	76,456.96
Drumheller, Municipal	111,709.43	53,660.61	165,370.04	60,620.50	104,749.54	125,081.97	.....	229,831.51	1,718.11	231,549.62
Eckville, Municipal	24,843.00	7,358.45	32,201.45	13,376.25	18,825.20	37,749.24	352.60	56,927.04	216.91	57,143.95
Edmonton, General	420,145.30	351,798.70	771,944.00	85,292.44	686,651.56	70,929.40	.....	757,580.96	33,026.32	790,607.28
Edmonton, Misericordia	472,529.58	255,760.82	728,290.40	134,161.77	594,128.63	90,981.30	10,380.97	695,490.90	10,954.62	706,445.52
Edmonton, Royal Alexandra	1,089,785.25	517,975.00	1,607,760.25	203,378.22	1,404,382.03	319,668.63	45,239.05	1,769,289.71	22,265.52	1,791,555.23
Edmonton, University	1,389,934.00	606,946.77	1,996,880.77	188,377.63	1,808,503.14	315,263.70	97,519.33	2,221,286.17	.....	2,221,286.17
Edson, St. John's	38,858.86	15,673.39	54,532.25	7,267.81	47,264.44	6,456.70	.....	53,721.14	201.75	53,922.89

TABLE No. 5—REVENUE FOR OPERATING PURPOSES—Continued

Hospitals	Day Rate Services	Special Services	Gross Earnings	Deductions	Net Earnings	Grants	Out-Patient Earnings	Total Operating Revenue	Other Revenue	Total Revenue
Elk Point, Municipal	\$ 43,015.00	\$ 7,324.95	\$ 50,339.95	\$ 22,635.90	\$ 27,704.05	\$ 31,711.72	\$	\$ 59,415.77	\$ 717.40	\$ 60,133.17
Elnora, Municipal	14,377.25	2,490.42	16,867.67	8,041.75	8,825.92	22,889.65	273.60	31,989.17	366.23	32,355.40
Empress, Municipal	18,439.30	6,143.97	24,583.27	5,610.65	18,972.62	15,994.79	.....	34,967.41	60.00	35,027.41
Fairview, Municipal	33,373.00	10,736.70	44,109.70	19,149.27	24,960.43	30,921.61	1,851.44	57,733.48	986.70	58,720.18
Ft. McMurray, St. Gabriel's	24,245.81	5,509.15	29,754.96	3,489.86	26,265.10	2,790.10	.....	29,055.20	1,500.81	30,556.01
Fort Vermilion, St. Theresa	33,806.38	1,503.96	35,310.34	3,581.98	31,728.36	3,801.83	50.00	35,580.19	.....	35,580.19
Galahad St. Joseph's	21,336.05	8,053.98	29,390.03	4,428.07	24,961.96	3,785.10	.....	28,747.06	1,075.95	29,823.01
Glendon, Municipal	12,423.37	2,951.81	15,375.18	6,573.45	8,801.73	19,960.17	.....	28,761.90	1,273.10	30,035.00
Grande Prairie, Municipal	83,747.53	29,756.44	113,503.97	54,970.08	58,533.89	88,218.25	3,657.61	150,409.75	599.36	151,009.11
Hanna, Municipal	40,183.65	16,477.87	56,661.52	20,897.72	35,763.80	53,217.33	.....	88,981.13	1,278.51	90,259.64
Hardisty, St. Anne's	24,045.10	10,592.05	34,637.15	4,529.05	30,108.10	4,270.00	.....	34,378.10	.....	34,378.10
High Prairie, Providence	87,996.05	32,881.53	120,877.58	17,181.43	103,696.15	12,208.70	5,248.15	121,153.00	1,417.09	122,570.09
High River Municipal	63,989.05	17,334.86	81,323.91	41,345.60	39,978.31	72,567.05	.....	112,545.36	180.88	112,726.24
Innisfail, Municipal	8,918.65	8,348.99	17,267.64	.....	17,267.64	56,552.15	.....	73,819.79	.....	73,819.79
Islay, Municipal	13,240.95	2,384.07	15,625.02	10,182.70	5,442.32	20,018.80	406.15	25,867.27	434.75	26,302.02
Jasper, Seton	20,039.95	11,500.59	31,540.54	4,446.49	27,074.05	2,601.10	.....	29,675.15	706.58	30,381.73
Killam, General	34,143.50	18,998.06	53,141.56	9,368.65	43,772.91	5,971.70	.....	49,744.61	1,565.03	51,309.64
Lacombe, Municipal	69,741.80	18,159.51	87,901.31	38,120.19	49,781.12	80,232.85	1,009.11	131,023.08	.....	131,023.08
Lac la Biche, St. Catherine's	30,790.30	13,707.15	44,497.45	8,971.60	35,525.85	5,697.50	2,007.00	43,230.35	.....	43,230.35
Lamont, Archer Memorial	98,657.10	32,927.86	131,584.96	11,271.29	120,313.67	15,436.62	.....	135,750.29	18,126.88	153,877.17
Lethbridge, Galt	194,423.42	90,012.30	284,435.72	25,912.04	258,523.68	50,398.15	.....	308,921.83	3,083.48	312,005.31
Lethbridge, St. Michael's General	264,219.89	174,469.52	438,689.41	57,922.28	380,767.13	35,626.90	.....	416,394.03	54,095.77	470,489.80
Macleod, Municipal	37,090.66	4,699.62	41,790.28	8,547.45	33,242.83	30,657.83	.....	63,900.66	118.74	64,019.40
McLennan, Sacred Heart	46,124.50	13,509.77	59,634.27	15,633.87	44,000.40	7,574.70	463.35	52,038.45	9,682.78	61,721.23
Magrath, Municipal	23,742.71	7,804.49	31,547.20	14,652.25	16,894.95	40,745.05	.....	57,640.00	2,199.33	59,839.33
Manning, Battle River	12,539.90	5,046.45	17,586.35	3,656.86	13,929.49	10,702.50	2,228.25	26,860.24	925.50	27,785.74
Mannville, Municipal	24,002.90	4,290.91	28,293.81	14,867.45	13,426.36	28,541.78	930.82	42,898.96	30.00	42,928.96
Mayerthorpe, Municipal	38,002.00	15,882.69	53,884.69	22,028.74	31,855.95	34,445.95	3,144.44	69,446.34	.....	69,446.34
Medicine Hat, General	202,071.90	64,355.74	266,427.64	27,094.92	239,332.72	133,432.00	.....	372,764.72	2,960.26	375,724.98
Mundare, General	22,153.50	5,623.40	27,776.90	6,894.88	20,882.02	3,261.80	1,032.14	25,175.96	14,705.02	39,880.98
Myrnam, Municipal	14,797.60	4,923.61	19,721.21	8,194.35	11,526.86	29,726.90	892.23	42,145.99	43.38	42,189.37
Olds, Municipal	42,566.75	13,247.90	55,814.65	21,651.37	34,163.28	68,415.80	676.45	103,255.53	81.10	103,336.63
Oyen, Municipal	14,057.55	2,538.16	16,595.71	7,045.45	9,550.26	26,576.95	.....	36,127.21	612.00	36,739.21
Peace River, Municipal	55,648.95	19,177.85	74,826.80	30,683.70	44,143.10	43,413.85	7,235.45	94,792.40	863.35	95,655.75
Pincher Creek, St. Vincent's	43,380.00	13,442.50	56,822.50	8,380.14	48,442.36	6,780.00	.....	55,222.36	.....	55,222.36

Ponoka, Municipal	35,070.00	16,653.74	51,723.74	23,229.88	28,493.86	45,503.80	1,973.80	75,971.46	2,502.00	78,473.46
Provost, Municipal	27,085.50	14,417.56	41,503.06	19,211.37	22,291.69	35,999.00	2,323.65	60,614.34	.....	60,614.34
Radway, St. Joseph's	21,534.00	9,304.89	30,838.89	7,130.07	23,708.82	3,868.00	2,437.00	30,013.82	645.96	30,659.78
Raymond, Municipal	14,206.50	7,562.25	21,768.75	11,267.55	10,501.20	25,882.95	673.70	37,057.85	26.12	37,083.97
Red Deer, Municipal	143,996.50	45,715.30	189,711.80	76,230.99	113,480.81	100,934.13	1,537.90	215,952.84	2,177.34	218,130.18
Rimbey, Municipal	29,353.50	10,890.95	40,244.45	17,888.24	22,356.21	43,103.80	1,996.05	67,426.06	1,079.00	68,505.06
Rocky Mountain House, Municipal	31,260.00	7,851.95	39,111.95	17,617.05	21,494.90	30,150.65	303.45	51,949.00	64.50	52,013.50
Smoky Lake, George McDougall	3,122.50	1,205.83	4,328.33	485.49	3,842.84	635.50	.....	4,478.34	9,466.74	13,945.08
Spirit River, Holy Cross	45,892.95	12,498.07	58,391.02	14,020.65	44,370.37	7,708.60	2,398.00	54,476.97	604.00	55,080.97
Stettler, Municipal	87,567.78	28,633.95	116,201.73	56,063.97	60,137.76	105,662.02	983.85	166,783.63	100.78	166,884.41
St. Paul, St. Theresa	77,381.55	23,145.63	100,527.18	20,741.95	79,785.23	9,800.20	.....	89,585.43	1,643.17	91,228.60
Taber, Municipal	53,631.00	17,500.23	71,131.23	20,856.88	50,274.35	42,943.54	.....	93,217.89	242.83	93,460.72
Three Hills, Municipal	17,789.25	7,106.05	24,895.30	7,644.18	17,251.12	41,296.81	1,920.52	60,468.45	36.90	60,505.35
Tofield, Municipal	28,595.90	11,738.55	40,334.45	19,772.07	20,562.38	39,439.96	.....	60,002.34	.....	60,002.34
Trochu, St. Mary's	14,669.55	4,649.38	19,318.93	2,454.09	16,864.84	2,167.10	1,552.22	20,584.16	360.97	20,945.13
Turner Valley, Oilfield's General	21,054.75	20,281.07	41,335.82	3,955.44	37,380.38	3,808.60	.....	41,188.98	.....	41,188.98
Two Hills, Municipal	30,271.15	10,920.30	41,191.45	19,118.20	22,073.25	51,322.50	2,122.45	75,518.20	662.00	76,180.20
Vegreville, General	104,542.70	40,998.56	145,541.26	30,772.40	114,768.86	14,479.80	4,546.30	133,794.96	142.17	133,937.13
Vermilion, Municipal	37,292.60	5,967.50	43,260.10	22,252.50	21,007.60	45,465.35	838.50	67,311.45	206.77	67,518.22
Viking, Municipal	22,054.25	6,538.99	28,593.24	16,813.10	11,780.14	31,140.69	740.80	43,661.63	363.00	44,024.63
Vilna, Our Lady's	14,617.50	6,527.25	21,144.75	2,758.15	18,386.60	3,145.30	.....	21,531.90	.....	21,531.90
Vulcan, Municipal	41,385.30	15,178.46	56,563.76	32,204.11	24,359.65	51,014.40	897.00	76,271.05	572.63	76,843.68
Wainwright, Municipal	70,416.05	27,303.49	97,719.54	34,999.60	62,719.94	58,484.98	6,220.73	127,425.65	.....	127,425.65
Westlock, Immaculata	74,029.25	30,813.79	104,843.04	4,943.93	99,899.11	14,352.25	1,974.05	116,225.41	9,257.10	125,482.51
Wetaskiwin, Community	73,669.54	31,927.76	105,597.30	12,722.13	92,875.17	10,685.40	126.25	103,686.82	266.79	103,953.61
Willingdon, General	23,795.20	7,121.48	30,916.68	6,266.76	24,649.92	2,839.90	1,629.72	29,119.54	14,171.63	43,291.17
Total	\$ 8,661,156.32	\$ 3,940,934.76	\$12,602,091.08	\$ 2,532,169.30	\$10,069,921.78	\$ 3,882,066.95	\$ 287,494.13	\$14,239,482.86	\$ 279,554.80	\$14,676,755.56

Not Available: Bonnyville, Katherine H. Prittie; Cadomin, General; Canmore, Canmore; Edmonton, Beulah Home; Nordegg, General; and Lethbridge, Isolation.

TABLE No. 6—DISTRIBUTION OF HOSPITAL COSTS

Hospitals	Operating Cost Per Patient Per Day	Percentage of Cost							Revenue per Patient per day	
		Salaries and Wages	Supplies	Purchased Services	Insurance	Depreciation	Repairs and Replacements	Interest and Exchange		Miscellaneous
Athabasca, Municipal	\$ 9.30	37.5	28.2	4.6	0.8	4.6	0.3	17.2	6.8	\$ 9.32
Banff, Mineral Springs	11.63	53.5	37.6	3.3	1.1	2.1	1.6	0.0	0.8	9.99
Barrhead, St. Joseph's	8.50	56.5	33.3	3.5	0.4	2.0	3.6	0.0	0.7	6.43
Bassano, Municipal	9.16	43.2	30.0	8.9	0.5	5.3	10.5	0.3	1.3	6.86
Beaverlodge, Municipal	8.85	44.9	38.3	4.1	0.7	6.5	4.2	0.8	0.5	9.34
Bentley, Municipal	10.43	39.6	33.6	5.0	1.0	10.7	2.1	8.0	....	11.84
Berwyn, Municipal	6.21	43.9	35.0	7.4	1.3	....	2.0	8.0	2.4	8.09
Blairmore, Crow's Nest Pass. Mun.	11.17	47.1	29.4	2.7	0.8	12.9	0.1	6.7	0.3	11.11
Bonnyville, St. Louis	4.82	60.5	26.7	2.8	....	6.4	2.4	0.0	1.2	5.35
Brooks, Municipal	10.52	43.0	35.0	3.6	0.6	3.7	7.9	2.6	3.6	10.55
Calgary, General	9.48	54.8	36.0	1.7	0.6	....	2.9	0.9	3.1	8.59
Calgary, Holy Cross	10.24	50.3	32.4	1.8	0.5	8.5	3.3	1.1	2.1	9.63
Calgary, Junior Red Cross	6.36	67.7	27.6	3.2	0.6	....	0.4	....	0.5	7.42
Calgary, Salvation Army Grace	8.28	50.3	35.5	2.2	0.6	2.4	3.2	....	5.8	8.62
Camrose, St. Mary's	9.46	44.3	30.8	3.8	0.7	10.1	1.2	8.6	0.5	8.46
Cardston, Municipal	9.34	41.2	40.8	3.9	0.6	3.5	8.8	0.5	0.7	10.14
Carmangay, Little Bow Municipal	13.77	63.3	28.9	4.0	0.4	....	2.9	0.1	0.4	15.25
Castor, Our Lady of the Rosary	6.60	27.6	57.3	4.0	1.5	3.9	5.3	....	0.4	6.85
Cereal, Municipal	13.45	45.8	35.2	5.1	0.1	8.4	4.0	0.3	1.1	11.63
Claresholm, Municipal	7.89	43.2	31.3	3.0	0.6	6.0	2.2	2.4	11.3	8.14
Cold Lake, John Neil	8.62	53.1	29.3	4.4	0.5	2.5	9.0	0.0	1.2	4.49
Consort, Municipal	8.16	38.3	31.5	5.9	0.9	16.1	2.5	4.2	0.6	9.13
Coronation, Municipal	7.10	45.5	37.6	4.1	0.6	5.9	3.9	0.0	2.4	7.80
Daysland, Providence	12.94	54.2	27.4	3.2	0.3	11.3	3.2	....	0.4	8.38
Desmarais, St. Martin's	4.48	41.4	49.7	5.2	0.4	3.1	....	....	0.2	4.69
Didsbury, Municipal	10.73	40.6	36.5	3.1	0.6	9.2	3.6	4.5	1.9	11.01
Drumheller, Municipal	9.52	47.1	37.4	3.7	0.6	2.5	6.6	0.1	2.0	9.80
Eckville, Municipal	10.03	38.9	39.9	5.6	1.1	7.8	1.8	3.8	1.1	10.31
Edmonton, General	11.22	55.7	29.4	1.2	1.3	7.7	2.3	0.6	1.8	5.90
Edmonton, Misericordia	9.20	45.4	38.0	2.3	0.6	6.4	4.9	1.7	0.7	8.27
Edmonton, Royal Alexandra	10.66	54.6	33.1	1.6	2.4	1.3	4.6	1.6	0.8	10.66
Edmonton, University of Alberta ..	12.01	56.1	33.0	1.7	0.3	....	2.7	5.2	1.0	11.78
Edson, St. John's	7.84	56.5	23.6	3.0	0.6	7.9	7.7	0.1	0.6	6.77

Elk Point, Municipal	5.33	43.3	45.5	6.1	0.8	...	3.0	0.2	1.1	5.91
Elhora, Municipal	11.14	46.2	23.6	4.7	0.0	...	2.5	15.8	7.2	11.62
Empress, Municipal	7.88	46.6	43.8	4.5	0.2	...	3.8	0.1	1.0	8.71
Fairview, Municipal	8.09	39.2	34.8	8.0	0.8	5.2	5.3	5.0	1.7	8.83
Ft. McMurray, St. Gabriel's	9.00	51.6	26.7	3.5	0.1	7.7	0.7	6.1	3.6	5.60
Fort Vermilion, St. Theresa	4.16	37.2	40.0	6.3	0.4	11.1	4.3	0.6	0.1	3.34
Galahad, St. Joseph's	8.74	61.7	25.9	2.1	0.6	3.7	4.3	1.5	0.2	6.16
Glendon, Municipal	10.61	42.6	30.7	9.8	1.0	...	3.7	10.5	1.7	11.19
Grande Prairie, Municipal	7.92	36.9	37.3	4.0	0.8	10.5	2.4	1.4	6.7	7.34
Hanna, Municipal	9.41	46.8	40.0	3.2	0.8	2.6	5.6	0.4	0.6	10.00
Hardisty, St. Anne's	8.93	54.2	30.9	3.1	0.8	4.7	5.4	0.1	0.8	6.24
High Prairie, Providence	6.05	44.8	43.4	3.3	0.5	4.3	1.1	1.2	1.4	6.65
High River, Municipal	7.80	49.6	36.8	4.2	0.5	4.5	2.6	1.1	0.7	8.61
Innisfail, Municipal	7.88	45.2	45.2	4.8	0.8	...	3.5	0.2	0.3	9.31
Islay, Municipal	8.12	45.6	29.2	5.4	0.8	4.5	0.4	0.0	14.1	8.81
Jasper, Seton	9.30	55.8	25.5	2.7	0.1	8.3	6.3	...	1.3	7.46
Killam, General	7.86	53.0	31.6	2.2	0.6	6.1	2.4	3.6	0.5	6.72
Lacombe, Municipal	9.22	41.7	37.1	4.7	0.8	8.4	1.8	3.4	2.1	9.05
Lac la Biche, St. Catherine's	6.18	53.6	33.6	6.1	0.4	3.8	1.2	0.0	1.3	5.50
Lamont, Archer Memorial	9.39	47.5	36.5	4.5	...	6.0	2.2	1.3	2.0	8.48
Lethbridge, Galt	8.22	42.5	49.7	3.0	0.2	0.5	3.1	0.1	0.9	3.56
Lethbridge, St. Michael's General	8.67	47.2	38.7	3.3	0.3	4.3	2.4	3.1	0.7	10.48
Macleod, Municipal	12.33	43.5	38.8	5.6	0.7	4.9	3.7	1.3	1.5	13.08
McLennan, Sacred Heart	7.24	42.3	36.9	6.1	0.6	4.4	6.0	0.5	3.2	6.28
Magrath, Municipal	10.61	43.2	31.6	5.3	0.6	7.2	2.8	7.8	1.5	13.04
Manning, Battle River	10.16	38.5	45.4	5.7	0.4	5.4	2.7	0.0	1.9	9.35
Mannville, Municipal	8.82	45.2	36.4	6.2	0.6	4.2	1.2	0.0	6.2	9.63
Mayerthorpe, Municipal	10.23	31.7	44.3	5.8	0.7	9.6	1.9	6.0	0.0	9.55
Medicine Hat, General	9.57	51.3	34.0	10.9	0.5	...	1.7	0.6	1.0	10.65
Mundare, General	7.44	36.6	30.9	3.7	0.4	5.0	10.1	0.0	13.3	7.79
Myrnam, Municipal	13.24	51.3	29.0	6.5	0.6	6.3	4.9	...	1.4	12.45
Olds, Municipal	9.35	37.8	34.1	5.8	0.7	11.9	1.5	5.2	3.0	11.70
Oyen, Municipal	9.12	45.3	37.2	2.9	0.7	6.2	5.1	2.5	0.1	11.97
Peace River, Municipal	8.78	39.8	37.5	4.1	1.2	10.8	3.2	2.5	0.9	8.18
Pincher Creek, St. Vincent's	5.76	53.0	32.8	3.0	0.8	1.2	6.6	1.0	1.6	5.86
Ponoka, Municipal	10.45	45.6	27.9	4.5	1.8	11.4	3.6	5.1	0.1	10.36
Provost, Municipal	9.90	46.2	40.1	5.1	0.6	2.9	4.7	0.1	0.3	11.12
Radway, St. Joseph's	7.72	39.2	41.6	4.1	0.6	13.5	0.5	0.0	0.5	6.59
Raymond, Municipal	10.68	43.9	36.4	4.6	0.5	4.7	3.9	4.5	1.5	11.53
Red Deer, Municipal	9.34	46.7	33.1	5.8	0.6	4.3	1.7	7.0	0.8	9.73
Rimbey, Municipal	11.27	37.5	31.2	2.9	2.0	12.8	3.3	7.7	2.6	11.03

TABLE No. 6—Continued

Hospitals	Operating Cost Per Patient Per Day	Percentage of Cost						Revenue per Patient per day		
		Salaries and Wages	Supplies	Purchased Services	Insurance	Deprecia- tion	Repairs and Replace- ments		Interest and Exchange	Miscel- laneous
Rocky Mountain House, Municipal	\$ 7.54	43.5	35.7	6.3	0.8	3.5	8.2	1.9	0.1	\$ 7.90
Spirit River, Holy Cross	6.59	46.1	36.0	3.2	0.2	1.2	5.1	0.1	8.1	4.94
Stettler, Municipal	8.83	42.2	41.3	2.7	0.7	8.0	1.0	3.4	0.7	8.98
St. Paul, St. Theresa	7.04	51.1	28.0	2.9	0.7	5.2	9.9	1.6	0.6	6.55
Taber, Municipal	7.93	47.9	31.2	3.5	0.2	6.4	7.6	2.5	0.7	8.47
Three Hills, Municipal	16.78	39.4	26.6	6.9	0.8	14.6	5.4	5.4	0.9	14.95
Tofield, Municipal	9.64	34.7	36.8	2.5	1.0	13.3	4.2	7.5	....	10.12
Trochu, St. Mary's	14.98	35.8	26.3	2.3	0.7	23.6	1.7	8.9	0.7	6.73
Turner Valley, Oilfields General	8.62	43.3	46.2	4.1	0.2	1.7	1.6	0.3	2.6	8.37
Two Hills, Municipal	10.47	41.8	33.1	4.3	0.8	10.9	1.8	6.7	0.6	12.15
Vegreville, General	7.27	35.7	38.2	8.3	1.2	12.3	2.2	1.4	0.7	6.89
Vermilion, Municipal	7.32	46.5	35.3	5.0	0.6	8.4	2.9	0.3	1.0	8.46
Viking, Municipal	8.75	47.1	39.7	4.2	0.7	1.8	4.0	0.2	2.3	8.35
Vilna, Our Lady's	8.14	59.9	26.9	1.4	0.2	4.4	5.8	0.0	1.4	5.71
Vulcan, Municipal	9.61	42.2	33.3	4.6	1.0	11.4	3.9	3.6	....	9.63
Wainwright, Municipal	8.55	38.2	34.2	3.7	0.7	13.3	3.3	6.0	0.6	8.93
Westlock, Immaculata	7.84	25.4	34.8	3.8	0.8	3.5	26.2	4.6	0.9	7.30
Wetaskiwin, Community	6.95	49.2	35.2	5.9	0.5	6.9	1.8	0.0	0.5	7.10
Willingdon, General	6.56	44.1	35.8	1.7	0.6	5.5	3.1	0.0	9.2	8.08
Total.....	\$ 9.27	49.7	34.5	3.0	0.8	4.4	3.5	2.5	1.6	\$ 9.04
In Operation Part of Year: Smoky Lake, George McDougall	\$ 34.71	41.4	27.8	3.0	0.5	19.6	5.9	0.6	1.2	\$20.57

Not Available:—Bonnyville, Katherine H. Prittie; Cadomin, General; Canmore, Canmore; Edmonton Beulah Home; Lethbridge, Isolation; Nordegg, General.

TABLE No. 7—GRANTS PAID DIRECTLY TO HOSPITALS

Approved Hospitals	70c Per Diem			Maternity Grant		Pension Grant		Extra Per Diem Grant		Total Amount
	Grant Days	Non-Grant Days	Amount	Grant Days	Amount	Grant Days	Amount	Grant Days	Amount	
Athabasca, Municipal	7,936	264	\$ 5,555.20	1,466	\$ 5,497.50	602	\$ 2,648.80	505	\$ 252.50	\$ 13,954.00
Banff, Mineral Springs	8,680	4,255	6,076.00	366	1,610.40	309	1,436.85	102	76.50	9,199.75
Barrhead, St. Joseph's	9,658	101	6,760.60	1,453	5,884.65	1,551	6,824.40	792	396.00	19,865.65
Bassano, Municipal	5,305	109	3,713.50	652	2,640.60	400	1,760.00	244	122.00	8,236.10
Beaverlodge, Municipal	3,600	35	2,520.00	645	2,418.75	373	1,641.20	304	152.00	6,731.95
Bentley, Municipal	3,374	56	2,361.80	281	1,138.05	120	504.00	133	66.50	4,070.35
Berwyn, Municipal	5,089	34	3,562.30	725	2,718.75	913	4,017.20	520	260.00	10,558.25
Blairmore, Crow's Nest Pass, Municipal	14,032	451	9,822.40	1,486	6,538.40	1,725	8,021.25	785	588.75	24,970.80
Bonnyville, St. Louis	9,100	1,639	6,370.00	1,335	5,406.75	1,866	8,210.40	749	374.50	20,361.65
Brooks, Municipal	10,416	58	7,291.20	1,509	6,639.60	345	1,564.50	403	302.25	15,797.55
Cadomin, General	506	17	354.20	187	757.35	.....	.....	7	3.50	1,115.05
Calgary, General	114,305	6,237	80,013.50	16,292	89,606.00	12,234	68,510.40	7,229	9,036.25	247,166.15
Calgary, Isolation	10,890	421	7,623.00	.....	.....	.....	.....	.....	.....	7,623.00
Calgary, Holy Cross	117,486	6,775	82,240.20	16,294	89,617.00	7,421	41,557.60	4,658	5,822.50	219,237.30
Calgary, Junior Red Cross	18,376	2,892	12,863.20	.....	.....	.....	.....	.....	.....	12,863.20
Calgary, Salvation Army Grace	4,666	1,042	3,266.20	2,025	8,910.00	.....	.....	310	232.50	12,408.70
Camrose, St. Mary's	23,386	485	16,370.20	3,587	17,038.25	2,722	13,746.10	1,450	1,450.00	48,604.55
Canmore, Canmore	3,077	35	2,153.90	265	993.75	137	602.80	135	67.50	3,817.95
Cardston, Municipal	8,518	41	5,962.60	1,560	6,318.00	503	2,213.20	496	248.00	14,741.80
Carmangay, Little Bow Municipal	2,335	35	1,634.50	104	390.00	187	822.80	132	66.00	2,913.30
Castor, Our Lady of the Rosary	6,668	57	4,667.60	788	3,467.20	577	2,538.80	320	160.00	10,833.60
Cereal, Municipal	1,871	49	1,309.70	231	866.25	639	2,556.00	219	109.50	4,841.45
Claresholm, Municipal	11,856	.....	8,299.20	1,097	4,826.80	790	3,673.50	411	308.25	17,107.75
Cold Lake, John Neil	1,080	1,447	756.00	257	963.75	125	500.00	114	57.00	2,276.75
Consort, Municipal	5,239	520	3,667.30	474	1,919.70	689	3,031.60	320	160.00	8,778.60
Coronation, Municipal	5,574	106	3,901.80	714	2,677.50	457	1,828.00	318	159.00	8,566.30
Daysland, Providence	3,503	40	2,452.10	252	1,020.60	285	1,254.00	213	106.50	4,833.20
Desmarais, St. Martin's	856	2,128	599.20	67	251.25	44	193.60	7	3.50	1,047.55
Didsbury, Municipal	7,558	199	5,290.60	997	4,386.80	334	1,553.10	388	291.00	11,521.50
Drumheller, Municipal	25,334	421	17,733.80	2,981	14,159.75	1,537	7,761.85	1,221	1,221.00	40,876.40
Eckville, Municipal	6,027	29	4,218.90	735	3,234.00	561	2,468.40	287	143.50	10,064.80

Table No. 7—Continued

Approved Hospitals	70c Per Diem			Maternity Grant		Pension Grant		Extra Per Diem Grant		Total Amount
	Grant Days	Non-Grant Days	Amount	Grant Days	Amount	Grant Days	Amount	Grant Days	Amount	
Edmonton, Beulah Home	3,935	408	\$ 2,754.50	1,314	\$ 5,321.70	.....	\$	318	\$ 159.00	\$ 8,235.20
Edmonton, General	82,300	6,319	57,610.00	7,637	42,003.50	12,931	72,413.60	5,092	6,365.00	178,392.10
Edmonton, Misericordia	94,665	1,985	66,265.50	15,209	83,642.30	7,914	44,318.40	5,795	7,243.75	201,469.95
Edmonton, Royal Alexandra*	162,314	11,089	113,619.80	24,217	133,193.50	15,613	87,432.80	9,199	11,498.75	345,744.85
Edmonton, University*	126,383	9,426	88,468.10	7,867	43,268.50	11,303	63,296.80	5,690	7,112.50	202,145.90
Edson, St. John's	8,581	524	6,006.70	1,769	7,783.60	468	2,176.20	600	450.00	16,416.50
Elk Point, Municipal	9,963	850	6,794.10	919	3,446.25	1,741	7,660.40	586	293.00	18,373.75
Elnora, Municipal	3,053	1	2,137.10	357	1,445.85	427	1,878.80	188	94.00	5,555.75
Empress, Municipal	3,381	1,029	2,366.70	488	1,976.40	491	2,160.40	262	131.00	6,634.50
Fairview, Municipal	7,415	84	5,190.50	1,185	4,443.75	562	2,472.80	467	233.50	12,340.55
Ft. McMurray, St. Gabriel's	3,196	2,558	2,237.20	343	1,389.15	168	672.00	180	90.00	4,388.35
Ft. Smith, General, N.W.T.	641	N.A.	448.70	36	135.00	.....	.....	13	6.50	590.20
Ft. Vermilion, St. Theresa	2,369	8,639	1,658.30	288	1,080.00	312	1,248.00	141	70.50	4,056.80
Galahad, St. Joseph's	5,267	18	3,686.90	702	2,843.10	351	1,544.40	196	98.00	8,172.40
Glendon, Municipal	3,014	27	2,109.80	518	2,097.90	386	1,698.40	197	98.50	6,004.60
Grande Prairie, Municipal	18,837	1,663	13,185.90	2,165	8,768.25	2,309	10,736.85	1,191	893.25	33,584.25
Grande Prairie, Hythe, Sub Hospital	1,634	48	1,143.80	240	900.00	87	348.00	101	50.50	2,442.30
Hanna, Municipal	9,872	20	6,910.40	1,245	5,478.00	1,181	5,484.05	478	358.50	18,230.95
Hardisty, St. Anne's	5,882	109	4,117.40	683	2,766.15	744	3,273.60	322	161.00	10,318.15
High Prairie, Providence	16,135	4,205	11,294.50	2,192	8,877.60	855	3,975.75	707	530.25	24,678.10
High River, Municipal	13,993	254	9,795.10	1,829	7,407.45	779	3,622.35	721	540.75	21,365.65
Innisfail, Municipal	8,547	210	5,982.90	1,075	4,730.00	1,160	5,394.00	493	369.75	16,476.65
Islay, Municipal	3,064	39	2,144.80	195	731.25	427	1,878.80	217	108.50	4,863.35
Jasper, Seton	3,683	900	2,578.10	664	2,689.20	43	189.20	146	73.00	5,529.50
Killam, General	8,286	180	5,800.20	1,309	5,301.45	1,035	4,812.75	616	462.00	16,376.40
Lac La Biche, St. Catherine's	8,917	146	6,241.90	1,835	7,431.75	694	3,053.60	567	283.50	17,010.75
Lacombe, Municipal	15,727	154	11,008.90	2,116	9,310.40	2,122	9,867.30	942	706.50	30,893.10
Lamont, Archer Memorial	16,659	2,481	11,661.30	1,568	7,448.00	2,406	12,150.30	953	953.00	32,212.60
Lethbridge, Galt	36,331	2,744	25,431.70	3,648	17,328.00	4,990	25,199.50	2,233	2,233.00	70,192.20
Lethbridge, Isolation	1,068	.....	747.60	.....	.....	27	136.35	.....	.....	883.95
Lethbridge, St. Michael's General..	47,505	2,357	33,253.50	6,713	31,886.75	3,355	16,942.75	2,379	2,379.00	84,462.00

Lloydminster, Lloydminster	13,143	N.A.	\$	9,200.10	1,439	\$	5,827.95	927	\$	4,310.55	564	\$	423.00	19,761.60
Macleod, Municipal	5,114	131		3,579.80	498		2,016.90	841		3,700.40	421		210.50	9,507.60
McLennan, Sacred Heart	10,853	94		7,597.10	1,679		6,799.95	657		2,890.80	539		269.50	17,557.35
Magrath, Municipal	4,803	247		3,362.10	526		1,972.50	318		1,272.00	153		76.50	6,683.10
Manning, Battle River	3,348	102		2,343.60	731		2,960.55	118		472.00	206		103.00	5,879.15
Mannville, Municipal	4,932	34		3,452.40	837		3,389.85	495		2,178.00	286		143.00	9,163.25
Mayerthorpe, Municipal	8,120	11		5,684.00	1,256		5,086.80	501		2,329.65	311		233.25	13,333.70
Medicine Hat, General	35,900	3,409		25,130.00	5,308		25,213.00	5,332		26,926.60	2,644		2,644.00	79,913.60
Medicine Hat, Isolation	79			55.30										55.30
Mundare, General	5,328	89		3,729.60	488		1,976.40	1,255		5,522.00	311		155.50	11,383.50
Myrnam, Municipal	3,597	39		2,517.90	359		1,346.25	764		3,361.60	346		173.00	7,398.75
Nordegg, General	116			81.20	7		26.25				7		3.50	110.95
Olds, Municipal	9,575	173		6,702.50	1,385		6,094.00	1,188		5,524.20	646		484.50	18,805.20
Oyen, Municipal	3,199	118		2,239.30	344		1,393.20	538		2,501.70	90		67.50	6,201.70
Peace River, Municipal	12,364	470		8,654.80	1,656		7,075.70	731		3,303.40	458		343.50	19,377.40
Pincher Creek, St. Vincent's	9,713	409		6,799.10	1,053		4,264.65	987		4,342.80	505		252.50	15,659.05
Ponoka, Municipal	8,445	51		5,911.50	1,449		6,375.60	573		2,664.45	493		369.75	15,321.30
Provost, Municipal	5,790	69		4,053.00	529		2,142.45	459		2,019.60	327		163.50	8,378.55
Radway, St. Joseph's	5,315	236		3,720.50	1,196		4,485.00	540		2,376.00	295		147.50	10,729.00
Raymond, Municipal	3,542	132		2,479.40	638		2,583.90	511		2,248.40	270		135.00	7,446.70
Red Deer, Municipal	24,601	616		17,220.70	3,674		17,451.50	2,366		11,948.30	1,359		1,359.00	47,979.50
Rimbey, Municipal	6,852	21		4,796.40	962		4,232.80	533		2,478.45	306		229.50	11,737.15
Rocky Mountain House, Municipal	7,066	200		4,946.20	962		3,896.10	601		2,644.40	291		145.50	11,632.20
Smoky Lake, George McDougall	760	1		532.00	129		522.45	228		1,003.20	207		103.50	2,161.15
Spirit River, Holy Cross	11,801	318		8,260.70	1,470		5,953.50	725		3,190.00	514		257.00	17,661.20
Stettler, Municipal	19,313	766		13,519.10	2,008		8,835.20	2,207		10,262.55	1,120		840.00	33,456.85
St. Paul, St. Theresa	12,972	2,681		9,080.40	2,371		10,134.55	1,309		5,949.35	905		678.75	25,843.05
Taber, Municipal	12,289	294		8,602.30	2,197		8,897.85	846		3,722.40	814		407.00	21,629.55
Three Hills, Municipal	4,582	129		3,207.40	991		4,360.40	149		692.85	234		175.50	8,436.15
Tofield, Municipal	6,385	57		4,469.50	793		3,489.20	799		3,715.35	424		318.00	11,992.05
Trochu, St. Mary's	3,364	37		2,354.80	438		1,773.90	466		2,050.40	281		140.50	6,319.60
Turner Valley, Oilfield's General	5,298	22		3,708.60	599		2,425.95	256		1,024.00	211		105.50	7,264.05
Two Hills, Municipal	6,784	108		4,748.80	882		3,880.80	1,159		5,389.35	565		423.75	14,442.70
Vegreville, General	19,403	1,182		13,582.10	1,589		6,991.60	4,385		20,390.25	1,185		888.75	41,852.70
Vermilion, Municipal	9,137	29		6,395.90	1,736		7,638.40	779		3,427.60	620		310.00	17,771.90
Viking, Municipal	5,708	35		3,995.60	714		2,677.50	671		2,952.40	382		191.00	9,816.50
Vilna, Our Lady's	3,746	832		2,622.20	1,059		4,288.95	281		1,124.00	303		151.50	8,186.65
Vulcan, Municipal	8,622	143		6,035.40	1,204		4,876.20	243		1,112.95	350		262.50	12,287.05
Wainwright, Municipal	14,161	1,267		9,912.70	1,544		6,793.60	2,461		11,443.65	1,062		796.50	28,946.45
Westlock, Immaculata	18,662	246		13,063.40	2,594		10,505.70	1,718		7,559.20	1,044		522.00	31,650.30

TABLE No. 7—Continued

Approved Hospitals	70c Per Diem			Maternity Grant		Pension Grant		Extra Per Diem Grant			Total Amount
	Grant Days	Non-Grant Days	Amount	Grant Days	Amount	Grant Days	Amount	Grant Days	Amount		
Wetaskiwin, Community	14,626	1,925	\$ 10,238.20	2,419	\$ 10,643.60	1,387	\$ 6,449.55	856	\$ 642.00	\$ 27,973.35	
Willingdon, General	5,589	84	3,912.30	493	1,996.65	1,449	6,375.60	452	226.00	12,510.55	
Total for Hospitals Operating Full year	1,563,915	105,252	\$1,094,740.50	201,357	\$ 970,319.45	154,080	\$ 780,328.45	86,119	\$ 81,855.25	\$2,927,243.65	
Hospitals in Operation part of year: Bonnyville, Kath. H. Prittie (5 mos.)	541	.....	378.70	35	141.75	20	88.00	38	19.00	627.45
Total for Approved Hospitals	1,564,456	105,252	\$1,095,119.20	201,392	\$ 970,461.20	154,100	\$ 780,416.45	86,157	\$ 81,874.25	\$2,927,871.10	
PRIVATE HOSPITALS:											
Coaldale	N.A.	N.A.	N.A.	680	2,040.00	N.A.	N.A.	N.A.	N.A.	2,040.00	
Luscar	N.A.	N.A.	N.A.	44	132.00	N.A.	N.A.	N.A.	N.A.	132.00	
Macklin (Sask.), St. Joseph's ..	N.A.	N.A.	N.A.	.....	.....	27	117.45	N.A.	N.A.	117.45
Sexsmith, Maternity	N.A.	N.A.	N.A.	866	2,598.00	N.A.	N.A.	N.A.	N.A.	2,598.00	
Swalwell, Linden Nursing Home	N.A.	N.A.	N.A.	557	1,114.00	N.A.	N.A.	N.A.	N.A.	1,114.00	
Total for Private Hospitas	N.A.	N.A.	N.A.	2,147	\$ 5,884.00	27	117.45	N.A.	N.A.	6,001.45	
GRAND TOTAL	1,564,456	105,252*	\$1,095,119.20	203,539	\$ 976,345.20	154,127	\$ 780,533.90	86,157	\$ 81,874.25	\$2,933,872.55	

*Excluding D.V.A., Polio, and T.B. Division days.
Note: The above table does not include \$27,885.30 paid to the Junior Red Cross Hospital in Calgary for 13,252 orthopaedic days.

TABLE No. 8—HOSPITALIZATION GRANT TO LOCAL AUTHORITIES

Local Authority	January to March Inclusive						April to December Inclusive					
	Under 3 months of age		3 months to 1 year		1 year to 3 years		Over 3 years		Under 16 years of age		16 years of age and over	
	Days	Amount	Days	Amount	Days	Amount	Days	Amount	Days	Amount	Days	Amount
No. of Participating months												
10	10	\$	5	2.50	9	6.75	15	18.75	40	60.00	133	266.00
12	12								590	737.50	2,373	4,152.75
12	12						4	5.00	58	72.50	296	518.00
12	12		4	2.00	11	8.25	64	80.00	341	426.25	1,305	2,283.75
6	6										33	66.00
12	12				4	3.00	18	22.50	112	140.00	939	1,643.25
12	12				30	22.50	597	27.50	375	454.15	1,545	2,625.05
12	12		32	16.00	1	.75	608	16.25	229	286.25	831	1,454.25
6	6								604	755.00	620	1,085.00
6	6								306	612.00	60	90.00
12	12		3	1.50	40	30.00	208	364.00	293	366.25	869	1,520.75
12	12		30	15.00	13	9.75	837	1,464.75	945	1,317.45	3,884	7,322.90
12	12		411	205.50	331	248.25	13,009	29,270.25	9,272	16,226.00	32,450	73,012.50
6	6								988	1,719.80	3,338	7,494.90
11	11		7	3.50	9	6.75	676	1,340.25	371	556.50	2,519	5,037.50
9	9								235	352.50	1,832	3,664.00
12	12				176	132.00			919	1,148.75	2,456	4,298.00
12	12		1	.50	49	36.75	665	1,130.50	317	380.40	1,729	2,939.30
12	12						120	198.00	40	46.00	288	475.20
10	10						64	128.00	44	88.00	4	6.00
12	12				30	22.50	1,632	3,100.80	335	469.00	2,951	5,606.90
12	12		6	3.00	12	9.00	637	1,114.75	207	258.75	1,693	2,962.75
12	12				2	1.50	739	1,219.35	230	264.50	1,575	2,598.75
12	12		89	44.50			1,540	2,926.00	492	688.80	3,804	7,227.60
12	12				22	16.50	653	1,192.25	551	713.25	1,448	2,648.00
9	9								356	489.00	677	1,295.75
12	12		14	7.00		9.00	693	1,316.70	438	613.20	1,888	3,587.20

TABLE No. 8—Continued

Local Authority	January to March Inclusive						April to December Inclusive					
	Under 3 months of age		3 months to 1 year		1 year to 3 years		Over 3 years		Under 16 years of age		16 years of age and over	
	No. of Partic- ipating months	Days	Amount	Days	Amount	Days	Amount	Days	Days	Amount	Days	Amount
Drumheller, Municipal Hospital Dist.	12	135	\$ 67.50	89	\$ 118.75	2,760	\$ 5,520.00	1,786	8,312	\$ 2,679.00	13,177	\$ 16,624.00
Eckville, Municipal Hospital District	12	22	11.00	46	51.25	619	1,083.25	575	1,582	718.75	2,885	2,768.50
Elk Point, Municipal Hospital District	12	19	9.50	70	40.00	1,088	1,904.00	842	2,465	1,052.50	4,516	4,313.75
*Elnora, Municipal Hospital District	12	.....	.....	10	13.75	322	563.50	290	471	362.50	1,104	824.25
Empress, Municipal Hospital District	12	.....	.....	.....	42.50	322	563.50	337	769	421.25	1,462	1,345.75
Fairview, Municipal Hospital District	12	45	22.50	31	46.25	975	1,706.25	433	1,888	541.25	3,409	3,304.00
Flagstaff, Municipal District	12	25	12.50	80	113.75	2,031	3,046.50	1,070	4,521	1,412.05	7,818	6,781.50
Glendon, Municipal Hospital District	12	.....	.....	10	35.00	322	563.50	316	705	395.00	1,381	1,233.75
Grande Prairie, Municipal Hosp. Dist.	12	7	3.50	25	82.50	2,611	4,922.65	1,652	6,168	2,293.80	10,529	11,656.70
Granum, Town	10	.....	.....	.....	.....	.....	.....	2	80	2.80	82	152.00
Hanna, Municipal Hospital District	12	.....	.....	22	107.50	798	1,516.20	447	2,770	625.80	4,123	5,263.00
High River, Municipal Hospital Dist.	12	.....	.....	22	2.50	1,439	2,734.10	414	4,268	579.60	6,145	8,109.20
Hughenden, Municipal Hospital Dist.	12	.....	.....	14	21.25	411	719.25	1,181	214	2,087.30	1,837	275.00
Innisfail, Municipal Hospital District	12	.....	.....	14	35.00	933	1,772.70	387	2,632	541.80	3,994	5,000.80
Irma, Municipal Hospital District	12	.....	.....	12	.....	264	500.25	131	414	178.00	821	781.80
Islay, Municipal Hospital District	12	.....	.....	39	56.25	565	988.75	222	1,464	277.50	2,335	2,562.00
Killam, Village	12	.....	.....	.....	2.50	101	191.90	80	171	112.00	354	324.90
Lac La Biche, Town	12	.....	.....	.....	.....	7	5.25	85	213	106.25	305	372.75
Lacombe, Municipal Hospital District	12	26	13.00	63	53.75	1,392	2,644.80	655	4,256	917.00	6,435	8,086.40
Lamont, Municipal District	10	9	4.50	43	28.75	458	829.30	1,882	4,016	2,606.10	6,431	7,755.65
Lamont, Village	12	.....	.....	.....	.....	141	282.00	53	343	79.50	537	686.00
Leduc, Municipal District	12	33	16.50	41	27.50	1,780	3,824.90	4,033	1,009	9,010.30	6,918	1,742.65
Lethbridge, City	12	24	12.00	25	108.75	2,830	5,660.00	1,629	9,555	2,443.50	14,150	19,110.00
Little Bow, Municipal Hospital Dist.	12	8	4.00	32	6.25	169	295.75	121	979	151.25	1,314	1,713.25
Lloydminster, Municipal Hospital Dist.	12	39	19.50	61	86.25	1,814	3,446.60	1,179	5,108	1,650.60	8,270	9,705.20
McLennan, Town	8	.....	.....	.....	.....	.....	.....	309	195	386.25	504	341.25
MacLeod, Municipal Hospital District	12	.....	.....	24	16.25	343	600.25	211	825	263.75	1,416	1,443.75
Magrath, Municipal Hospital District	12	8	4.00	14	38.75	425	701.25	561	1,399	645.15	2,438	2,308.35

Mannville, Municipal Hospital District	12	10	5.00	55	41.25	120	150.00	405	708.75	407	508.75	1,309	2,290.75	2,306	3,704.50
Mayerthorpe, Municipal Hospital Dist.	12	1	.50	43	32.25	31	38.75	540	1,026.00	653	914.20	1,465	2,783.50	2,733	4,795.20
Medicine Hat, City	12	42	21.00	4	3.00	22	27.50	1,735	3,384.50	750	1,125.00	4,290	8,580.00	6,843	13,141.00
Minburn, Municipal District	12	8	4.00	26	19.50	39	48.75	320	606.20	268	370.55	1,379	2,584.70	2,040	3,633.70
Morinville, Municipal District	6	.....	.....	.....	.....	.....	.....	.....	.....	844	1,343.00	2,194	4,634.00	3,038	5,977.00
Mundare, Town	10	.....	.....	.....	.....	.....	.....	.....	.....	44	55.00	192	336.00	236	391.00
Municipal Affairs, Department of	12	112	56.00	87	65.25	62	77.50	541	946.75	1,189	1,541.15	4,364	7,931.80	6,355	10,618.45
Myrnam, Municipal Hospital District	12	21	10.50	2	1.50	8	10.00	462	808.50	256	320.00	871	1,524.25	1,620	2,674.75
New Norway, Village	3	.....	.....	.....	.....	.....	.....	.....	.....	35	52.50	10	20.00	45	72.50
Olds, Municipal Hospital District	12	11	5.50	5	3.75	60	75.00	1,011	1,920.90	354	495.60	2,446	4,647.40	3,887	7,148.15
Oyen, Municipal Hospital District	12	13	6.50	9	6.75	15	18.75	412	782.80	359	502.60	1,166	2,215.40	1,974	3,532.80
Peace River, Municipal Hospital Dist.	12	16	8.00	41	30.75	51	63.75	1,302	2,278.50	962	1,332.85	2,425	4,519.90	4,797	8,233.75
Pembina, Municipal District	12	11	5.50	8	6.00	9	11.25	394	867.25	168	294.00	1,058	2,380.50	1,648	3,564.50
Penhold, Village	12	10	5.00	.....	.....	.....	.....	3	6.00	40	59.00	54	108.00	107	178.00
Ponoka, Municipal Hospital District	12	11	5.50	12	9.00	11	13.75	987	1,875.30	667	932.30	2,153	4,090.70	3,841	6,926.55
Provost, Municipal District	12	8	4.00	3	2.25	.....	.....	38	66.50	25	31.25	284	497.00	358	601.00
Provost, Municipal Hospital District	12	.....	.....	32	24.00	9	11.25	605	1,058.75	492	615.00	1,608	2,814.00	2,746	4,523.00
Radway, Village	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17	29.75	17	29.75
Raymond, Municipal Hospital District	12	2	1.00	9	6.75	19	23.75	364	637.00	338	422.50	651	1,139.25	1,383	2,230.25
Rimbey, Municipal Hospital District	12	35	17.50	41	30.75	11	13.75	783	1,487.70	421	589.40	1,654	3,142.60	2,945	5,281.70
Red Deer, Municipal Hospital District	12	130	65.00	50	37.50	78	97.50	1,654	3,308.00	1,145	1,717.50	4,344	8,688.00	7,401	13,913.50
Rocky Mountain House, Municipal Hospital District	12	131	65.50	10	7.50	6	7.50	624	1,092.00	541	676.25	1,710	2,992.50	3,022	4,841.25
Sedgewick, Village	12	.....	.....	4	3.00	.....	.....	90	167.80	27	36.15	322	595.80	443	802.75
Smoky Lake, Municipal District	12	6	3.00	18	13.50	15	18.75	439	745.55	421	496.55	2,035	3,461.65	2,934	4,739.00
Spirit River, Municipal Hospital Dist.	12	11	5.50	84	63.00	60	75.00	1,267	2,217.25	1,286	1,607.50	3,195	5,591.25	5,903	9,559.50
Stettler, Municipal Hospital District	12	31	15.50	44	33.00	73	91.25	2,089	3,969.10	1,144	1,601.60	6,668	12,669.20	10,049	18,379.65
Stony Plain, Municipal District	8	.....	.....	.....	.....	.....	.....	.....	.....	785	1,373.75	2,502	5,629.50	3,287	7,003.25
Stony Plain, Town	6	.....	.....	.....	.....	.....	.....	26	45.50	380	855.00	380	855.00	406	900.50
St. Paul, Municipal Hospital District	12	60	30.00	130	97.50	268	335.00	1,167	2,042.25	1,599	2,216.70	3,487	6,471.40	6,711	11,192.85
Strathcona, Municipal District	12	43	21.50	9	6.75	76	95.00	1,159	2,482.00	827	1,395.75	3,054	6,766.25	5,168	10,767.25
Strome, Village	12	.....	.....	4	3.00	4	5.00	44	83.60	16	22.40	118	224.20	186	338.20
Sturgeon, Municipal District	8	.....	.....	.....	.....	.....	.....	567	940.75	567	940.75	2,290	5,020.50	2,857	5,961.25
Sylvan Lake, Town	12	.....	.....	.....	.....	18	22.50	189	370.00	116	174.00	468	936.00	791	1,502.50
Taber, Municipal Hospital District	12	11	5.50	21	15.75	38	47.50	980	1,715.00	676	845.00	2,209	3,865.75	3,935	6,494.50
Thorsby, Village	8	.....	.....	.....	.....	.....	.....	.....	.....	12	21.00	149	335.25	161	356.25
Three Hills, Municipal Hospital Dist.	12	2	1.00	.....	.....	3	3.75	563	1,069.70	261	365.40	1,341	2,547.90	2,170	3,987.75
Tofield, Municipal Hospital District	12	39	19.50	19	14.25	12	15.00	415	788.50	157	219.80	1,425	2,707.50	2,067	3,764.55
Trochu, Municipal Hospital District	12	5	2.50	6	4.50	10	12.50	362	633.50	185	231.25	1,024	1,792.00	1,592	2,676.25
Two Hills, Municipal Hospital District	12	10	5.00	44	33.00	61	76.25	805	1,529.50	734	1,027.60	1,678	3,188.20	3,332	5,859.55
Vegreville, Municipal Hospital District	12	15	7.50	198	148.50	120	150.00	1,376	2,614.40	1,548	2,167.20	3,365	6,393.50	6,622	11,481.10

TABLE No. 8—Continued

Local Authority	January to March Inclusive						April to December Inclusive					
	Under 3 months of age		3 months to 1 year		1 year to 3 years		Over 3 years		16 years of age and over		Under 16 years of age	
	No. of Partic- ipating months	Days	Amount	Days	Amount	Days	Amount	Days	Amount	Days	Amount	Days
Vermilion, Municipal Hospital District	12	.....	\$ .....	.....	5	6.25	\$ 1,874.25	358	447.50	2,517	\$ 4,404.75	3,951
Viking, Municipal Hospital District ..	12	3	1.50	.....	28	35.00	1,191.75	390	487.50	1,611	2,819.25	2,713
Vulcan, Municipal Hospital District	12	14	7.00	.....	8	10.00	1,918.00	578	797.50	2,032	3,814.90	3,747
Wainwright, Municipal Hospital Dist.	12	5	2.50	.....	28	35.00	2,901.30	894	1,251.60	3,191	6,062.90	5,665
Westlock, Town	12	.....	.....	4	3.00	7.50	366.25	39	48.75	396	693.00	660
Wetaskiwin, City	12	.....	.....	.....	21	26.25	421.80	189	264.60	1,018	1,934.20	1,450
Wetaskiwin, M.D.	12	18	9.00	.....	20	25.00	1,673.90	420	590.30	1,652	3,145.90	3,006
Willingdon, Municipal Hospital Dist. ..	3	.....	.....	.....	.....	.....	.....	154	193.40	425	753.95	579
GRAND TOTAL		1,847	\$ 923.50	2,614	\$1,960.50	3,097	\$ 3,871.25	62,938	\$ 94,549.80	222,528	\$431,097.90	371,571
							\$150,771.10					\$683,174.05

*Payments at the end of year on behalf of Contract Holders.
Elnora, Municipal Hospital District\$ 19.00 Lethbridge, City 1,123.72
Hughenden, Municipal Hospital Dist. 20.50 Vegreville, Municipal Hospital Dist. 136.75

TABLE 9
HOSPITALIZATION OF ALBERTA POPULATION, BY AGE,1951
(Newborn excluded)

Age Group	Total Population	Number Hospitalized*	% of Each Age Group Hospitalized	% of Hospitalized in Each Age Group
0- 4	116,846	17,400	15	10
5- 9	93,063	12,100	13	7
10-19	150,838	18,100	12	11
20-29	152,242	39,000	26	23
30-39	138,460	25,700	19	15
40-44	56,971	8,500	15	5
45-49	50,146	7,500	15	4
50-54	42,334	7,000	17	4
55-59	37,001	6,300	17	4
60-64	34,657	6,700	19	4
65-69	29,439	6,300	22	4
70-74	19,553	6,200	32	4
75 and over	17,951	7,600	43	5
N.S.	.....	100	....	....
Total	939,501	168,500	18	100

*excludes Polio, D.V.A. and T.B. Division cases
Population according to 1951 census.

Division of Tuberculosis Control

DR. G. R. DAVIDSON, *Medical Director and General Medical Superintendent.*

The control of tuberculosis is the goal of the Tuberculosis Division. By control is meant that the transmission of disease be held below a point at which a given number of infection spreading cases can succeed in establishing an equal number of open cases to carry on the succession. From the gradual fall in mortality rates it can be inferred that some results are being obtained.

At the present time practically all disease in humans is caused by the human type of tubercle bacillus. Occasionally the bovine type is found to be the causative organism. This hazard has undoubtedly been materially reduced by legislation governing the production and sale of milk. The programme of control among cattle, hogs and poultry being carried on by the Veterinary Branch of the Department of Agriculture with the co-operation and assistance of the farming population deserves our highest commendation.

The Indian Health Services Branch of the Department of National Health and Welfare, operating from the Charles Camsell Hospital in Edmonton, is doing an outstanding work among the Indians of this province, also the Indians, Eskimos and others of the North West Territories. The decline in the death rate among their charges in Alberta is outstanding. Our sincerest thanks are also tendered the Indian Health Services for x-raying the chests of many Albertans who live in the northern areas of the province not accessible to clinic services supplied by the Tuberculosis Division.

The programme of the Tuberculosis Division, Department of Health was proceeded with as vigorously as finances, personnel and availability of beds would permit. The campaign of prevention and control was aimed at finding of early cases early, segregation and adequate treatment.

Diagnostic Services.

Regular clinics for the examination of contacts, cases referred by physicians, and ex-sanatorium patients were held at the Central Alberta Sanatorium; the Tuberculosis Division Clinic, Edmonton General Hospital; City Health Department, Calgary City Hall; Lethbridge; Camrose and Vegreville.

The mobile chest x-ray units were in operation for the eighth year and most of the accessible districts have been visited for a second time. The City of Calgary was re-surveyed in the winter of 1950-1951 and a second survey of Edmonton was commenced in the autumn of the latter year. It is gratifying to note that the number of new active cases found on the second visit was considerably less than on the first survey. It is apparent that the incidence of disease in the older settled sections is decreasing. Our efforts must, therefore, be directed more to the north.

The response of the public was very gratifying when compared with the response in other parts of Canada and the United States. Much of this is the result of the educational programme, publicity

and organization developed by the Alberta Tuberculosis Association. We wish to thank all the public spirited citizens for their co-operation and assistance in the survey work. During the year 145,000 people visited the mobile units. Some 11,439 were examined at stationary and other clinics. Under the plan of tuberculin skin-testing and/or x-raying the chests of hospital admissions sponsored by the Alberta Tuberculosis Association, 58,146 were examined. Most of these films were interpreted by sanatorium physicians. The clinic service of the Indian Health Services accounted for 14,043. Altogether 251,174 residents of the province received some form of diagnostic service. Of this number 960 new cases of active and inactive pulmonary tuberculosis were discovered.

Sincere thanks are extended to the nurses of the Alberta Tuberculosis Association in Edmonton, Calgary and Lethbridge, also to the nursing consultant of the Association.

Grateful acknowledgement is made of the services rendered to the Division by the Public Health Nursing Branch of the Department of Health in assisting us with the contacts and families in the outlying districts early in the new year.

Treatment Services.

Sanatorium care was provided for 1,452 patients during the year, an increase of 68 over 1950. Of these, 1,059 were treated in Provincial Sanatoria and 393 in the Charles Camsell Indian Hospital.

The period of treatment of the tuberculosis cases discharged in 1951 from Provincial Sanatoria was 9.2 months for the pulmonary cases and 5.5 months for the non-pulmonary cases.

Of the active pulmonary cases admitted 46% were minimal, 37.6% moderately advanced and 40.4% far advanced. Of these cases 232 had positive sputum on admission and 16 developed positive sputum later. 41.3% of admission of pulmonary cases were re-admissions. It is expected that with the increase in resectional surgery, along with the broadening rehabilitation programme, the number of re-admissions will decrease.

During the year 133 cases of non-pulmonary disease were admitted, which formed 30.7% of all tuberculous admissions.

(Detailed information in respect of the work accomplished is to be found in the statistical section of the report.)

Forty-one ex-sanatorium patients received pneumothorax or pneumoperitoneum at various points in the province by their attending physician. Our sincere thanks are extended to the medical men and the hospitals concerned for their co-operation and assistance. 11,923 treatments were given to patients in residence and out-patients.

The antimicrobials, Streptomycin and Para amino salicylic acid, still have a prominent place in our armamentarium and are valuable adjuncts to sanatorium care. By their use many people are now living. By their use the scope of surgery in tuberculosis has been markedly broadened, treatment time shortened and need for further treatment obviated.

Education Programme.

Qualified teachers have done exceptionally well in teaching all grades from elementary subjects to Grade XII and commercial classes. Students are able to keep up to the standings they would

attain if attending school at home. Grateful acknowledgement is made of the services of the Correspondence Branch of the Department of Education. The educational programme has done much to fit patients into fields of endeavor that are compatible with their physical and mental capabilities. Occupational therapy also plays an important part in treatment and oftentimes points the way toward suitable vocation. Rehabilitation is closely linked with the educational plan. Rehabilitation officers supplied by the Alberta Tuberculosis Association are doing a magnificent work among the patients and ex-patients. Our sincerest thanks are extended to the Alberta Tuberculosis Association for this exceptionally valuable service. Undoubtedly, many ex-patients, if they had to make a living in their old occupations, would suffer breakdowns and require re-admission to sanatoria. We are very grateful to the many employers of rehabilitated people for their very fine co-operation.

Courses in Tuberculosis Nursing.

Student nurses from general hospitals spent two months of their training at the Central Alberta Sanatorium and received lectures, demonstrations and nursing practice, with special reference to the technique of Tuberculosis nursing. Post-graduate courses of 6 months duration were also provided. 48 nurses took the affiliate course during the year. Everyone concerned with this programme has been exceptionally well pleased, particularly the students. Lectures by the medical staff were given to nurses-in-training at the various hospitals in Edmonton and Calgary.

Medical Students.

Fourth year medical students of the University of Alberta medical faculty attended lectures and clinics weekly at the Tuberculosis Division, Edmonton General Hospital. Because of the short time at their disposal only a ground work respecting tuberculosis and chest examination can be taught. It is hoped when the Aberhart Memorial Sanatorium is in operation that more students will have an opportunity to receive Tuberculosis training.

New Construction.

The Aberhart Memorial Sanatorium is gradually nearing completion and will be opened early in 1952. All patients now in Edmonton hospitals will be accommodated. It is hoped that the extra beds will put an end to the waiting list for some time. In the light of our increasing population with resultant housing shortages and crowded living quarters one is not too hopeful.

The addition to the surgical section at the Central Alberta Sanatorium is rapidly nearing completion. This addition also contains a second operating room and a second x-ray room, as well as increasing the space for the diagnostic clinic and medical records offices. The top floor is given over to surgical beds. This addition fills a long-felt need and will greatly expedite and facilitate the work.

Acknowledgements.

Our grateful thanks are extended to the Honourable Dr. W. W. Cross, Minister of Health and Dr. M. R. Bow, Deputy Minister, for their advice and assistance throughout the year.

Sincerest appreciation is felt for the co-operation and help of Dr. L. M. Mullen, Medical Superintendent of the Central Alberta

Sanatorium, Calgary and Dr. H. H. Stephens, Medical Superintendent in Edmonton, for their kind co-operation.

We wish to thank the Health Units for their help with problems of tuberculosis control.

Grateful acknowledgement is made of the loyal and faithful service rendered to the patients by all members of the staff and of the interest shown in the different aspects of tuberculosis control.

Last but not least we wish to extend our grateful thanks to the many friends and societies who were so thoughtful of our patients during the year. A list of the various groups who did so much to make the patients' stay in hospital bright and cheerful is attached.

DIAGNOSTIC CLINIC REPORT						
Place	No. of Sessions	New Cases Tuberculosis		New Exams.	Number Review Exams.	Total
		Pul.	Non-Pul.			
STATIONARY CLINICS:						
Calgary	50	5	....	129	209	338
Camrose	4	1	1	31	100	131
Central Alberta Sanatorium	99	48	5	1147	2317	3464
Drumheller	12	1	....	82	175	257
Eckville	9	....	....	61	97	158
Edmonton	100	193	10	2374	2999	5373
Lethbridge	11	4	1	276	347	623
Medicine Hat	10	3	....	60	142	202
Red Deer	6	....	....	124	165	289
Stettler	8	....	....	24	35	59
Vegreville	3	....	....	20	61	81
Total	262	255	17	4328	6647	10975
OTHER CLINICS						
Bassano	1	....	....	16	1	17
Brooks	1	....	....	25	2	27
Galahad	1	1	....	33	3	36
Magrath	1	....	....	22	2	24
Mayerthorpe	1	....	....	21	....	21
Taber	1	1	....	29	1	30
Vulcan	1	1	....	15	2	17
Miscellaneous (Films sent in from various points and paid for by Division.) .....	....	11	1	155	137	292
	7	14	1	316	148	464
Total All Clinics	269	269	18	4644	6795	11439

In addition to these 287 newly discovered cases of active tuberculosis there were also discovered 485 cases of inactive tuberculosis.

TUBERCULIN TESTING AND X-RAY SURVEYS

(Conducted by Public Health Nurses ,Teachers, Business Firms, Hospitals, etc.)

	Number Tested	Number X-Rayed
Red Cross Blood Transfusion Centre, Edmonton .....	.....	.....
Medical Students, University of Alberta .....	.....	474
Edmonton Rural Health Unit .....	.....	71
Calgary General Hospital Nursing Staff	137	.....
Medicine Hat Seal Survey .....	.....	50
Lethbridge School Survey	3,635	139
Medicine Hat Food Handlers Survey	385	131
Wheatland Health Unit	109	2
Banff Mineral Springs	833	146
Barrhead, St. Joseph's	703	341
Bassano Municipal	232	19
Battle River, Manning	619	62
Beaverlodge Municipal	1,136	132
Blairmore Crowsnest Pass (X-rays)	154	1,523
Calgary Holy Cross (X-rays) .....	.....	2,883
Camrose St. Mary's (X-rays)	28	1,276
Canmore Hospital	109	13
Cardston Municipal (X-rays)	1,317	957
Castor Our Lady of the Rosary	1,843	109
Cereal Municipal	55	1
Cold Lake, John Neil	358	43
Consort Municipal	170	17
Daysland Municipal	100	151
Didsbury Municipal	907	44
Drumheller Municipal (X-rays)	3,097	2,142
Eckville Municipal	899	53
Edmonton Royal Alexandra (X-rays)	0	11,751
Edmonton General (X-rays)	789	1,704
Elnora Municipal	130	14
Fairview Community	1,335	208
Galahad, St. Joseph's	744	29
Glendon Municipal	73	2
Hanna Municipal (X-rays)	438	940
Hardisty, St. Anne's	775	27
High River Municipal	2,989	262
Hythe Municipal	335	109
Innisfail Municipal (X-rays) .....	.....	238
Islay Municipal	759	54
Jasper-Seton	575	54
Killam General	936	116
Lac La Biche, St. Catherines	1,797	199
Lacombe Municipal (X-rays)	472	1,508
Lamont Hospital (X-rays) .....	.....	6,073
Lethbridge St. Michael's (X-rays)	131	13,845
Lethbridge Galt (X-rays)	124	136
Lloydminster Municipal (X-rays) .....	.....	1,237
Macleod Municipal	55	3
Magrath Municipal	118	0
Medicine Hat General (X-rays)	647	1,543
Mundare General	230	53
Olds Municipal (X-rays)	29	545
Oyen Municipal	170	12
Peace River Municipal (X-rays)	227	1,049
Ponoka Municipal	1,118	154
Provost Municipal	835	39
Raymond Municipal	85	2
Red Deer Municipal (X-rays)	1,612	3,082
Stettler Municipal .....	.....	.....
Taber Municipal	1,053	188
Tofield Municipal	366	23
Three Hills Municipal	155	18
Trochu St. Mary's	222	113
Vegreville General (X-rays)	1,367	2,134
Vermilion Municipal	812	98
Viking Municipal	676	66
Wainwright Municipal	2,378	285
Westlock Immaculata	3,120	161
Wetaskiwin Community	1,791	160
	46,294	59,013

N.B.—The total number of persons receiving service through surveys is 81,193 i.e number tuberculin tested plus those x-rayed without having been previously tuberculin tested.

MOBILE UNIT SURVEYS

	No. X-rayed		No. X-rayed
Alliance	796	McLaughlin	290
Acme	1,217	Marwayne	860
Andrew	1,857	Myrnam	1,486
Black Diamond	739	Mayerthorpe	1,101
Beiseker	868	Marlboro	182
Bruderheim	640	Mercoal	656
Brooks	2,578	New Sarepta	874
Bassano	666	Oliver	958
Calgary	65,717	Onoway	708
Chipman	677	Paradise Valley	413
Cluny	498	Peers	510
Clandonald	368	Raymond	1,386
Cherhill	652	Raymond Mental Hospital	151
Cadomin	487	Redwater	869
Devon	1,086	Radway	532
Duchess	1,427	Royalties	590
Derwent	801	Stirling	543
Duffield	556	Strathmore	1,109
Darwell	402	Sangudo	555
Drayton Valley	519	Seba Beach	525
Edmonton	9,225	Stony Plain	2,300
Elnora	607	Sarcee Reserve	11
Entwistle	360	Turner Valley	1,236
Evansburg	590	Taber	3,516
Edson	1,800	Three Hills	1,324
Forestburg	1,290	Torrington	702
Galahad	608	Trochu	1,044
Gleichen	393	Tilley	314
Hinton	187	Tilliby Lake	210
Irricana	326	Two Hills	1,412
Innisfree	508	Tomahawk	584
Jasper	1,095	Vulcan	1,617
Kitscoty	584	Vauxhall	1,110
Lamont	1,643	Vermilion	1,741
Luscar	354	Vegreville	2,877
Milo	516	Warner	713
Milk River	971	Willingdon	994
Magrath	1,003	Whitecourt	628
Mannville	976	Wildwood	761
Minburn	324		
Mundare	942		144,499

SUMMARY

Number X-rayed	144,499	
Probable Tuberculosis Active	41	(10 previously discovered)
Probable Tuberculosis Inactive	794	(318 previously discovered)
Further examination requested	908	
Non-tuberculosis chest condition ..	827	
Pleurisy Active	7	(1 previously discovered)
Pleurisy Inactive	374	(64 previously discovered)
No disease	141,465	

SUMMARY—CLINICS AND SURVEYS

	No. Sessions	Total	No. Exams.
Stationary Clinics	262		10,975
Other Clinics	7		464
Surveys (all types)	73		81,193
Mobile Unit	80		144,499
Indians, Whites and Half-breeds (work done by Department National Health and Wel- fare ..			14,043
	422		251,174

SOURCES OF DISCOVERY OF NEW CASES OF TUBERCULOSIS
(Indians excluded)

	1950	%	1951	%
Clinics	647	69.8	772	71.6
Referred for admission by family physicians	220	23.8	274	25.5
Surveys	0		2	.2
Referred by D.V.A.	11	1.2	3	.3
Provincial Laboratory	25	2.6	5	.5
Hospital admission films	3	.3	4	.4
Other sources	20	2.2	17	1.5
	926		1,077	

CLASSIFICATION OF 960 NEW CASES OF ACTIVE AND INACTIVE PULMONARY TUBERCULOSIS (Indians not included)	
Minimal	499
Moderately advanced	186
Far advanced	101
Primary	153
Tuberculous pleurisy with effusion	71
Evidence of previous pleurisy .....	.....
	<hr/> 960 <hr/>
No. of non-residents diagnosed as having tuberculosis	6
No. of known contacts of newly discovered cases of tuberculosis	1,556
No. of known contacts examined	1,148—73.1%

TUBERCULOSIS 1951

Supplies of Old Tuberculin was sent upon request to Clinics, Health Units, Hospitals, Doctors and Public Health Nurses.

	Number of Bottles Sent
Dilution No. 1	1
Dilution No. 2	88
Dilution No. 3	461
Dilution No. 4	22

INSTITUTIONAL REPORTS

	Central Alberta Sanatorium	Edmonton General Hospital	University of Alberta Hospital	Royal Alexandra Hospital	Others
Patients under treatment January 1, 1951.....	247	138	36	21	21
Patients admitted during 1951	224	139	34	11	188
Patients transferred in	27	53	19	14	4
Total treated	<hr/> 498 <hr/>	<hr/> 330 <hr/>	<hr/> 89 <hr/>	<hr/> 46 <hr/>	<hr/> 213 <hr/>
Discharged and died	254	164	42	22	124
Patients transferred out	6	29	12	9	61
Total discharged	<hr/> 260 <hr/>	<hr/> 193 <hr/>	<hr/> 54 <hr/>	<hr/> 31 <hr/>	<hr/> 185 <hr/>
Patients under treatment December 31, 1951	<hr/> 238 <hr/>	<hr/> 137 <hr/>	<hr/> 35 <hr/>	<hr/> 15 <hr/>	<hr/> 28 <hr/>
Number patients under treatment Jan. 1, 1951.....					463
Number of Admissions 1951					<hr/> 596 <hr/>
Total treated					1,059

DIAGNOSIS OF 596 PATIENT ADMISSIONS

	Central Alberta Sanatorium	Edmonton Sanatoria
Non-tuberculous	6	5
For diagnosis	14	18
Pleural Effusion	7	18
Tuberculosis, Inactive	3	1
Primary tuberculosis	8	15
Non-Pulmonary Tuberculosis	42	91
Pulmonary tuberculosis active:		
Minimal	31	49
Moderately advanced	57	82
Far advanced	68	75
Miliary	0	5
Silico tuberculosis	0	1
	<hr/> 236 <hr/>	<hr/> 360 <hr/>
Number with positive sputum on admission .	97	135
Number negative on admission, positive later	9	7
Number persistently negative	<hr/> 130 <hr/>	<hr/> 218 <hr/>
	236	360
Of the above 596 admissions re-admissions were	62	90

INSTITUTIONS SECTION

Of the above 596 admissions 16 were both admitted and re-admitted during 1951 i.e. 580 persons were admitted during 1951.

Please note the above includes the data for outside hospitals in the sanatorium figures.

In addition to the above there were 2,442 patients days in other provinces under the reciprocal agreement. Number of patients 19

Total institutional patient days including 2,442 paid for in other provinces under reciprocal agreement, 165,853.

Number of institutional patient days provided for non-residents under reciprocal agreement, 2,436. Number of patients 11.

OPERATING ROOM REPORTS

	Central Alberta Sanatorium	Edmonton General Hospital	Royal Alexandra Hospital	University Hospital	Total
THORACOPLASTY:					
Number stages	92	.....	.....	.....	92
Number of cases	38	.....	.....	.....	38
Number of revisions	8	.....	.....	.....	8
Pneumolysis	1	33	.....	.....	34
Pneumonectomy	1	.....	.....	.....	1
Aspirations:					
Pleural	107	52	7	99	265
Other	22	7	.....	.....	29
Pus and irrigation	23	.....	.....	.....	23
Phrenicophraxis	1	1	.....	.....	2
Bronchoscopic examination	8	1	.....	.....	9
Vital capacity	39	.....	.....	.....	39
Intracavity pressure	1	.....	.....	.....	1
Empyema pack and drainage	1	.....	.....	.....	1
Lobectomy	2	.....	.....	.....	2
Thoracoscopy .....	.....	10	.....	.....	10
Implantation cortate pellets	2	.....	.....	.....	2
Nephrectomy	3	.....	.....	.....	3
Epididymectomy	1	.....	.....	.....	1
Appendectomy	1	.....	.....	.....	1
Osteotomy	1	.....	.....	.....	1
Fixation of shoulder	1	.....	.....	.....	1
Fixation of hip	1	.....	.....	.....	1
Spinal fusion	3	.....	.....	.....	3
Removal fibroma on chest	1	.....	.....	.....	1
Biopsy neck gland	1	.....	.....	.....	1
Excision inguinal gland	1	.....	.....	.....	1
Excision ischio rectal abscess	1	.....	.....	.....	1
Excision mole on arm	1	.....	.....	.....	1
Incision of abscess .....	.....	3	.....	.....	3
Pelvic examination	13	5	.....	.....	18
Proctoscopic examination	5	.....	.....	.....	5
Cystoscopic examination	14	.....	.....	.....	14
Spinal punctures	59	191	1	.....	251
Streptomycin intrathecally .....	.....	191	1	.....	192
Gastric lavage	30	.....	.....	.....	30
Plaster shells and casts	34	.....	.....	.....	34
Abdominal paracentesis .....	.....	1	.....	.....	1
Repair of suturing of abdominal wound .....	.....	1	.....	.....	1
Transurethral resection bladder tumor .....	.....	.....	1	.....	1
	517	496	10	99	1,122
	Central Alberta Sanatorium	Edmonton General Hospital	Royal Alexandra Hospital	University Hospital	Total
Summary of Pneumothorax Cases:					
Under treatment January 1, 1951	98	123	10	.....	231
New cases started 1951	19	57	11	1	88
No. cases under treatment an admission ..	14	23	5	.....	42
	131	203	26	1	361
Number cases discontinued	55	31	8	.....	94
Number transferred out of Alberta.....	2	4	.....	.....	6
Number transferred to other sections of Division	11	33	4	.....	48
	68	68	12	.....	148
Under treatment Decmeber 31, 1951	63	135	14	1	213
Unsuccessfully attempted	10	10	5	.....	25
Refills:	1,045	2,833	520	13	4,411
Resident	1,700	2,384	23	.....	4,107
Out patient	2,745	5,217	543	13	8,518
Total.....					

In addition to the above 627 pneumothorax refills were given to 41 ex-sanatorium patients at the following points: Beaverlodge, Bonnyville, Drumheller, Elk Point, Hanna, High Prairie, Lacombe, Lamont, Lethbridge, Medicine Hat, Nordegg, Peace River, Ponoka, Provost, Red Deer, Vermilion, Wainwright.

Summary Pneumo-Peritoneum Cases:

Under treatment January 1, 1951	17	17	2	1	37
New cases started during 1951	46	33	9	3	91
Number under treatment on admission .....	.....	7	1	1	9
	63	57	12	5	137
Number discontinued	19	5	2	1	27
Transferred to other sections of the Division	3	5	.....	.....	8
	22	10	2	1	35
Under treatment December 31, 1951	41	47	10	4	102
Number of refills:					
Resident	1,574	601	142	74	2,391
Out-patients	70	317	.....	.....	387
	1,644	918	142	74	2,778

X-RAY DEPARTMENT REPORT

	Central Alberta Sanatorium	Edmonton General Hospital	Royal Alexandra Hospital	University of Alberta Hospital	Total
RADIOGRAPHS MADE:					
Thorax	6,494	5,948	207	85	12,734
Spine	118	34	.....	.....	152
Pelvis	24	12	.....	1	37
Knee	15	4	.....	1	20
Skull	1	.....	.....	.....	1
Sinuses	1	1	1	.....	3
Teeth	38	20	2	1	61
Shoulder	14	.....	1	2	17
Hand	15	.....	.....	.....	15
Fingers .....	.....	1	.....	.....	1
Wrist	15	.....	.....	.....	15
Elbow	5	6	.....	.....	11
Sacro-iliac	8	.....	.....	.....	8
Ankle	5	4	.....	1	10
Foot	1	2	.....	.....	3
Hips .....	.....	3	.....	.....	3
Ribs .....	.....	4	.....	.....	4
Jaw .....	.....	.....	.....	1	1
Arms .....	.....	1	.....	.....	1
Bronchogram .....	.....	6	1	.....	7
Abdomen	5	2	1	.....	8
Gall Bladder	3	.....	.....	.....	3
Stomach .....	.....	2	3	.....	5
Gastro-intestinal tract	10	3	1	.....	14
Colon	2	.....	.....	.....	2
Intravenous pyelogram	23	7	.....	1	31
Kidneys, ureters, bladder	2	.....	.....	.....	2
Pregnancy	1	.....	.....	.....	1
Sacrum .....	.....	1	.....	.....	1
Thigh .....	.....	1	.....	.....	1
Planogram .....	.....	.....	1	.....	1
X-ray therapy .....	.....	.....	.....	1	1
Retrograde pyelogram	13	.....	.....	1	14
	6,813	6,062	218	95	13,188
FLUOROSCOPIC EXAMINATIONS:					
Thorax	5,103	6,287	775	56	12,221
Gastro Intestinal Tract	10	3	1	11	25
Colon	2	.....	.....	.....	2
	5,115	6,290	776	67	12,248
Films referred for Interpretation	5,550	4,423	.....	.....	9,973
Basal Metabolism Rate	19	.....	.....	.....	19
Cardiogram	15	.....	.....	.....	15

LABORATORY REPORTS

N.B.—The Laboratory Report for the Central Alberta Sanatorium is done by the Southern Branch of the Provincial Laboratory and no report is available.

	Edmonton General Hospital	Royal Alexandra Hospital	University Hospital	Total
SPUTUM EXAMINATIONS:				
Positive	662	176	41	879
Negative	1,265	406	201	1,881
URINE EXAMINATIONS:	1,970	858	238	3,066
BLOOD EXAMINATIONS:				
Blood Counts	676	52	34	762
Sedimentations	755	177	95	1,027
Blood Sugar	118	25	48	191
MISCELLANEOUS:				
Pleural fluid	22	.....	.....	22
Spinal fluid	404	.....	.....	404
Gastric analysis	8	.....	.....	8
Gastric lavage	56	2	.....	58
Culture	272	.....	.....	272
Guinea pig inoculation	251	5	14	270
Other	1,051	10	55	1,116
	7,510	1,711	735	9,956

	Central Alberta Sanatorium	Edmonton General Hospital	Royal Alexandra Hospital	University Hospital	Total
WASSERMAN REPORTS:					
Positive	4	25	.....	2	31
Negative	204	136	32	12	384
	208	161	32	14	415

HELIO THERAPY REPORT

Number patients treated	49	13	3	.....	65
Number of treatments	985	105	46	.....	1,136

DENTAL REPORT

Number of patients	449	134	53	.....	636
Number of treatments	195	296	111	.....	602
Number prophylactic treatments	145	20	7	.....	172
Number of fillings	368	158	85	.....	611
Number of extractions	333	104	16	.....	453
Number new dentures and repairs	64	14	3	.....	81

CLASSIFICATION OF 606 DISCHARGED PATIENTS:

	On Admission. No.	Residence		On Discharge				
		31 days or less	Over 31 days	AA.	Q.	I.	U.	D.
1. For Diagnosis	38	19	19	....	2	28	1	....
2. Primary Tuberculosis	31	2	29	....	2	28	1	....
3. Reinfection type pulmonary tuberculosis clinical:								
Minimal	95	14	81	1	14	72	8	....
Moderately advanced	59	11	48	2	11	40	6	....
Far advanced	7	1	6	....	....	5	....	2
4. Reinfection type pulmonary tuberculosis bacillary:								
Minimal	13	....	13	....	2	10	....	1
Moderately advanced	106	5	101	....	20	74	5	7
Far advanced	103	16	87	1	14	44	9	35
Miliary	5	2	3	....	....	1	....	4
5. Tuberculosis pleurisy	23	4	19	....	3	17	3	....
6. Non-pulmonary Tuberculosis ...	126	41	85	2	5	93	16	10
Total active tuberculosis	568	96	472	6	71	384	48	59
Total treated .....	.....	.....	491	6	71	343	20	32
Total untreated .....	.....	115	....	....	....	41	28	27
Grand Total	606	115	491	6	71	384	48	59

Explanation of abbreviations and terms used: The standard classification is that of the National Tuberculosis Association: "Minimal", "Moderately advanced", and "Far advanced" refer to the anatomical extent of disease; "AA" Apparently arrested, "Q" Quiescent, "I" Improved, "U" Unimproved, and "D" Died.

NOTE: Only those in residence for 31 days are classed as "treated".

CLASSIFICATION OF ADMISSION OF 606 DISCHARGED PATIENTS:

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
For diagnosis	22	16	38
Primary tuberculosis	14	17	31
Pulmonary Tuberculosis, active	180	208	388
Tuberculosis pleurisy	5	18	23
Non-pulmonary tuberculosis	33	93	126
	<u>254</u>	<u>352</u>	<u>606</u>

DIAGNOSIS ON DISCHARGE OF 38 PATIENTS ADMITTED FOR DIAGNOSIS:

	Central Alberta Sanatorium	Edmonton Sanatoria
Carcinomatous .....	....	1
Pleurisy c effusion	2	1
Thickened pleura etiology c basal fibrosis ....	....	1
Bronchiectasis	1	1
Bronchogenic carcinoma .....	....	1
Pleural effusion due to secondary carcinoma	1	....
Neoplasm right lung	1	....
New growth c paraplegia probably secondary to genito urinary carcinoma .....	....	1
Thickened pleura c encapsulated fluid .....	....	1
Pneumonitis	1	....
History recent pneumonia	1	2
Spontaneous pneumothorax	1	....
Pulmonary Fibrosis c sepsis	4	....
Dry pleurisy associated c acute respiratory infection	1	....
Segmental atelectasis	1	....
Possible fungus infection	1	....
Pulmonary moniliasis	1	....
Bilateral spermatocoela	1	....
Arthritis	1	1
Osteochondritis of spine	1	....
Spondylitis, etiology unknown	1	....
Schizoid personality and narrow inter- vertebral disc. ....	....	1
Angina and hypertension .....	....	1
Basal tuberculoma or echinococalcyst .....	....	1
Abdominal adhesions, post operative and cholelithiasis .....	....	1
Old traumatic fracture .....	....	1
Peritonitis .....	....	2
No. disease—history of pleurisy	1	....
Non pulmonary tuberculosis cervical adenitis	1	....
	<u>22</u>	<u>16</u>

CLASSIFICATION ON DISCHARGE OF 472 TREATED CASES OF ACTIVE TUBER-
CULOSIS AND TUBERCULOSIS PLEURISY

On Admission:	Number	On Discharge		Died
		Improved	Unimproved	
Minimal	94	90	3	1
Moderately Advanced	149	141	4	4
Far Advanced	93	67	5	21
Primary	29	29	....	....
Miliary	3	1	....	2
Non-Pulmonary Tuberculosis	85	74	7	4
Tuberculosis Pleurisy	19	18	1	....
	<u>472</u>	<u>420</u>	<u>20</u>	<u>32</u>

SEX:

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
Male	125	192	317
Female	129	160	289
	<u>254</u>	<u>352</u>	<u>606</u>

SOCIAL STATUS:

Single	121	173	294
Married	199	149	268
Divorced	6	2	8
Widowed	4	20	24
Separated	4	8	12
	<u>254</u>	<u>352</u>	<u>606</u>

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
OCCUPATIONS—WOMEN:			
At Home	10	21	31
Bookkeeper—Stenographer	1	....	1
Child	5	19	24
Clerk (Office)	2	....	2
Comptometer Operator .....	....	1	1
Dental Assistant	1	....	1
Domestic	3	5	8
Druggist	1	....	1
Hairdresser	1	....	1
Gospel Worker	1	....	1
Housewife	57	72	129
Laundry Worker	1	....	1
Librarian	1	....	1
Nurse	5	2	7
Nurse (students)	1	....	1
Nursing Aide	2	3	5
Nursing Aide (Student)	1	....	1
Power Machine Operator	1	....	1
Radio Advertising	1	....	1
Restaurant Worker	1	....	1
Retired .....	....	1	1
Stenographer	4	1	5
Student	14	20	34
Storekeeper	1	....	1
Shop Assistant .....	....	1	1
Switchboard Operator	2	....	2
Teacher	2	1	3
Telephone Operator	1	....	1
Telephone Operator (retired)	1	....	1
Tray Girl (Hospital)	1	....	1
Typist	1	....	1
Waitress	3	4	7
Ward Aide	1	2	3
Unemployed .....	....	1	1
Clerk—sales	2	6	8
	<hr/> 129	<hr/> 160	<hr/> 289

OCCUPATION—MEN:			
At Home	2	8	10
Accountant	3	1	4
Asst. Manager—Oil Exploration	1	....	1
Assessor (Income Tax)	1	....	1
Air Engineer	1	....	1
Advertising Sales	1	....	1
Barber .....	....	1	1
Bartender	2	1	3
Bookkeeper	1	....	1
Bus Driver	2	....	2
Cafe Proprieter .....	....	1	1
Carpenter	1	3	4
Catepillar Engineer	1	....	1
Cat. Skinner .....	....	1	1
Clergyman (Retired)	1	....	1
Clerk Office	2	4	6
Clerk Sales	1	1	2
Chemist	1	....	1
Child	5	15	20
Caretaker	1	1	2
Cook	1	1	2
Cook (Retired)	1	....	1
Creamery Laborer .....	....	1	1
Construction Foreman	1	....	1
Contractor	1	....	1
Craneman (C.P.R.—retired)	1	....	1
Drayman	1	....	1
Farmer	17	55	72
Farmer (retired)	3	....	3
Factory Worker .....	....	1	1
Fireman .....	....	1	1
Garage Attendant	1	1	2
Gardener	1	....	1
Grader Operator	1	....	1
Foreman .....	....	1	1
Hotel Manager	1	....	1
Insurance	1	....	1
Interpreter (Chinese)	1	....	1
Jeweller .....	....	1	1
Latherer .....	....	2	2
Laborer	10	27	34
Livestock Dealer	1	....	1
Lumberman .....	....	4	4
Logger	1	....	1
Machinist	2	....	2
Machinist Helper	1	....	1
Mechanic	1	1	2
Miner	5	2	7

OCCUPATION—MEN—Continued

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
Maintenance Man (hotel)	1	....	1
Merchant Navy Seaman	1	....	1
Milkman	1	....	1
Motorman .....	....	1	1
Newspaper Reporter .....	....	1	1
Night Clerk .....	....	1	1
Office Manager	1	....	1
Officer (Unemployment Insurance Com.)	2	....	2
Orderly .....	....	1	1
Painter .....	....	1	1
Parts Man (Garage)	1	....	1
Plasterer .....	....	2	2
Plumber	2	....	2
Policeman	1	....	1
Pattern Maker (Wood work)	1	....	1
Pipe Fitter	1	....	1
Radio Announcer .....	....	1	1
Real Estate	1	1	2
Retired .....	....	11	11
Saddle Maker	1	....	1
Saleman	3	2	5
Sales Manager .....	....	1	1
Store Manager .....	....	1	1
Shipper .....	....	2	2
Service Man (Gas Co.)	1	....	1
Shoemaker	1	1	2
Sign Painter	1	....	1
Slaughterer—Packing House .....	....	1	1
Steel Rigger .....	....	1	1
Student	13	14	27
Survey Engineer (Gov't)	1	....	1
Steam Engineer	1	1	2
Sub-contractor .....	....	1	1
Teacher	1	2	3
Trapper	2	2	4
Trainman .....	....	1	1
Transport Driver .....	....	1	1
Timmer .....	....	1	1
Timekeeper .....	....	1	1
Tailor .....	....	2	2
Trucker	2	1	3
Unemployed	3	1	4
Van Driver	1	....	1
Watchman (Railroad)	1	....	1
Woodworker (Retired)	1	....	1
	<u>125</u>	<u>192</u>	<u>317</u>

RESIDENCE OF DISCHARGED PATIENTS:
CITIES:

Calgary	80	....	80
Drumheller	1	....	1
Edmonton	23	122	145
Lethbridge	13	....	13
Medicine Hat	8	....	8
Red Deer	5	....	5
Wetaskiwin	1	....	1
	<u>131</u>	<u>122</u>	<u>253</u>

TOWNS:

Athabasca .....	....	1	1
Banff	3	....	3
Bonnyville .....	....	1	1
Brooks .....	....	1	1
Camrose .....	....	2	2
Claresholm	2	....	2
Devon .....	....	4	4
Grand Prairie	1	....	1
High Prairie .....	....	3	3
Hanna	1	....	1
High River	2	....	2
Leduc .....	....	1	1
Lloydminster .....	....	1	1
Macleod	1	....	1
Magrath	1	....	1
Mundare .....	....	2	2
Nanton	1	....	1
Okotoks	1	....	1
Peace River	1	3	4
Pincher Creek	2	....	2
Ponoka	5	....	5
Raymond	1	....	1
Rocky Mountain House	1	....	1
St. Albert	1	5	6
St. Paul	1	2	3

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
Strathmore	1	....	1
Three Hills	3	....	3
Tofield .....	....	1	1
Vegreville	1	1	2
Vermilion .....	....	1	1
Wainwright .....	....	3	3
Taber	2	....	2
	<hr/> 32	<hr/> 32	<hr/> 64

VILLAGES:

Andrew	1	....	1
Arrowwood	1	....	1
Bentley	1	....	1
Berwyn .....	....	1	1
Blackie	1	....	1
Bowness	3	....	3
Carstairs	1	....	1
Clive	1	....	1
Duchess	1	....	1
Eckville	3	1	4
Elnora	1	....	1
Forest Lawn	1	....	1
Hythe .....	....	1	1
Kinuso .....	....	2	2
Killam .....	....	1	1
Manning .....	....	2	2
Mirror	1	....	1
Myrnam .....	....	1	1
Smoky Lake .....	....	1	1
Thorsby .....	..	1	1
Viking	2	....	2
	<hr/> 18	<hr/> 11	<hr/> 29

ENLARGED MUNICIPAL DISTRICTS:

No.			
5 .....	....	1	1
9	1	....	1
29	1	....	1
31	2	....	2
32	3	....	3
40	2	....	2
43	1	....	1
44	1	....	1
45	2	....	2
48	2	....	2
49	1	....	1
52 .....	....	2	2
55	1	2	3
61 .....	....	2	2
62	1	3	4
63 .....	....	5	5
64	1	....	1
66 .....	....	1	1
71	1	4	5
72 .....	....	1	1
73 .....	....	4	4
74	1	3	4
75 .....	....	2	2
81 .....	....	7	7
82 .....	....	4	4
83 .....	....	1	1
84	1	4	5
86	1	8	9
87 .....	....	2	2
88	1	3	4
89	1	12	13
90 .....	....	3	3
91 .....	....	3	3
92	1	2	3
93	1	12	13
103 .....	....	5	5
127	1	2	3
135 .....	....	1	1
	<hr/> 28	<hr/> 99	<hr/> 127

LOCAL IMPROVEMENT DISTRICTS:

No.	Central Alberta Sanatorium	Edmonton Sanatoria	Total
1	1	....	1
3	3	....	3
15	4	....	4
21	1	....	1
22	1	....	1
23	1	....	1
28	2	....	2
42	9	....	9
46	1	....	1
50	1	1	2
65	1	2	3
69	1	....	1
76 .....	....	2	2
78	1	....	1
80 .....	....	2	2
85 .....	....	6	6
101 .....	....	4	4
102	1	16	17
122	1	....	1
124 .....	....	9	9
125	2	13	15
126 .....	....	1	1
128 .....	....	4	4
130	2	2	4
132 .....	....	3	3
139 .....	....	2	2
143 .....	....	10	10
146 .....	....	3	3
147	1	8	9
	<hr/> 34	<hr/> 88	<hr/> 122
Special Areas Board	2	....	2
Non Resident	9	....	9

SUMMARY:

Cities	131	122	253
Towns	32	32	64
Villages	18	11	29
Municipal Districts	28	99	127
Local Improvement Districts	34	88	122
Special Areas Board	2	....	2
Non Resident	9	....	9
	<hr/> 254	<hr/> 352	<hr/> 606

AGE ON ADMISSION:

From 1- 9	18	33	51
From 10-14	6	10	16
From 15-19	13	50	63
From 20-29	81	82	163
From 30-39	64	62	126
From 40-49	34	48	82
From 50-59	22	35	57
From 60-69	11	26	37
70 and over	5	6	11
	<hr/> 254	<hr/> 352	<hr/> 606

NATIVITY:

Alberta	117	212	329
Canada (other provinces)	48	55	103
Austria	5	6	11
Australia	4	....	4
Belgium	1	2	3
China	3	2	5
Czechoslovakia	1	....	1
Denmark .....	....	1	1
England	14	10	24
Esthonia	1	....	1
France	2	....	2
Germany	1	4	5
Hungary	1	....	1
India	1	....	1
Ireland	1	2	3
Japan	1	....	1
Latvia	1	....	1
Lithuania .....	....	1	1
Norway	5	4	9
Poland	6	16	22
Russia	4	1	5
Roumania	1	1	2
Scotland	11	3	14
Sweden .....	....	3	3
Switzerland .....	....	2	2
Ukraine	2	6	8

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
United States of America	22	19	41
Wales .....	....	1	1
Yugoslavia .....	....	1	1
Danzig	1	....	1
	<u>254</u>	<u>352</u>	<u>606</u>
RESIDENCE IN ALBERTA:			
Born in Alberta	104	204	308
1 year or less	12	4	16
1- 5 years	29	20	49
6- 9 years	12	6	18
10-14 years	4	7	11
15-19 years	14	8	22
20-30 years	35	38	73
30 years or more	44	65	109
	<u>254</u>	<u>352</u>	<u>606</u>
RACIAL ORIGIN:			
Austrian	3	8	11
Belgian	1	2	3
Chinese	6	3	9
Czechoslovakian	1	....	1
Danish	2	1	3
Dutch	4	4	8
English	50	57	107
Esthonian	2	....	2
French	12	....	12
French Canadian	2	42	44
German	14	13	27
Hebrew	2	2	4
Hungarian	1	....	1
Indian (native)	2	....	2
Irish	33	24	57
Italian	2	2	4
Japanese	6	1	7
Latvian	1	....	1
Lithuanian .....	....	1	1
Metis	9	58	67
Norwegian	19	8	27
Polish	7	17	24
Roumanian	3	....	3
Russian	5	1	6
Scottish	41	29	70
Swedish	5	12	17
Slovak .....	....	1	1
Ukrainian	13	49	62
Welsh	7	4	11
Unknown	1	13	14
	<u>254</u>	<u>352</u>	<u>606</u>

LENGTH OF STAY IN SANATORIUM OF 606 DISCHARGED PATIENTS			
DEATHS:			
Number in Sanatorium under 31 days	4	23	27
Average patient days	60	360	366
Number patient days	15	13.3	14.5
Number in Sanatorium under 31 days	13	19	32
Number of patient days	19,654	8,241	27,895
Average patient days	1,511.8	433.7	871.6
DISCHARGES:			
Number in Sanatorium 31 or more days	17	71	88
Number patient days	296	987	1,283
Average number patient days	17.41	13.9	14.6
Number in Sanatorium 31 or more days	220	239	459
Number patient days	68,938	62,203	131,141
Average number patients days	313.35	260.3	285.7
Total number deaths and discharges	254	352	606
Total number patient days	88,748	71,737	160,485
Average number patient days	349.4	203.8	264.8
No. non-pulmonary admissions(individual)	33	75	108
No. non-pulmonary patient days (calendar)	7,238	10,856	18,094
Average patient days, non-pulmonary.....	219.33	144.7	167.5

DONATIONS AND ENTERTAINMENT

Central Alberta Sanatorium

ENTERTAINMENT:

Concert—Pipe Band, Canadian Legion Branch No. 1, Calgary.
 Entertainment—C.F.C.N. Calgary.
 Christmas concert and weekly showing of 16 mm. films—Canadian Red Cross.
 Entertainment—Choral Belles, Calgary.
 Entertainment—League of Mercy, Salvation Army.
 Carols—St. Stephens Church A.Y.P.A.
 Concert—Hudson's Bay Choir, Calgary.
 Concert—Excelsior Glee Club, Calgary.
 Christmas Service Music—St. Michael and All Angels Church Choir.
 Weekly shows.
 Valentine Party.
 St. Patrick's Day Party.
 Hallowe'en Party.
 Cribbage Tournament.
 Billiard Tournament.

DONATIONS:

Canadian Legion B.E.S.L., Ponoka—\$10 for comfort fund for ex-servicemen.
 Samaritan Club, Calgary—\$50 for entertainment and comfort fund.
 Ladies Auxillary to Canadian Legion, Three Hills—\$10.00 for entertainment and comfort fund.
 Mrs. Graig, Bowness—\$1.00 for entertainment and comfort fund.
 Shilo Ladies Club, Caroline—\$2.35 for entertainment and comfort fund.
 Kinettes—Clothing for children in children's ward.
 \$85.67 for Occupational Therapy Department.
 \$25.00 for Children's Ward.
 Wildmere Community, Vermilion—\$23.50 for entertainment and comfort fund, as a memorial to Mrs. Margaret Graham.
 Mrs. J. H. Woods, Calgary—\$25.00 for patients' Christmas entertainment.
 Alberta Tuberculosis Association, Calgary—Hymn Books for Chapel.
 Federal Ladies Aid, Coronation—Christmas Card for Occupational Therapy Department use.
 Campbell Floral Seeds and Nurseries Ltd., Calgary—Flowers.
 Mr. J. W. Hughes, Kelowna, B.C.—Flowers.
 Alberta Provincial Command, Ladies Auxilliary, The Canadian Legion, B.E.S.L.—Radio for patients, pictures for men's wards, gifts.
 Anonymous Donor—Subscription to Canadian Nature Annual 1948, 1949, 1950, 1951 (1st three years previously unacknowledged)
 Ladies Auxilliary, Canadian Legion, Innisfail—bed jackets, socks, bed socks.
 Mr. and Mrs. J. J. Jamieson and Mrs. S. C. W. Morris—books—"The Closing Ring", in memory of Mrs. Carson.
 Bowness Taxi—Christmas Cake.
 Palace Bread Ltd.—Christmas Cake.
 McGavins Ltd.—Christmas cakes and shortbread.
 Simmons Ltd.—Candy.
 Mrs. H. Buckle, Wainwright—gifts.
 Highway W. I., Red Deer—gifts.
 St. John's Catholic Women's League—gifts.
 Mr. J. O. Roberts, Calgary—gifts for hard-of-hearing patients.
 Drumheller Catholic Women's league—gifts.
 Chest Clinic, Lethbridge—gifts.
 Canadian Red Cross—gifts.
 St. Famille Church—gifts.
 Diocesan Board, W.A. of Anglican Church—gifts.
 Calgary Nisei Club—gifts.
 Mrs. B. Bevan, Calgary—gifts.
 Mrs. F. G. Macourt, Calgary—gifts for children.
 Veteran's Land Act—gifts for children.
 Sick Visiting Committee, Masonic Lodge—Fruit and Candy.
 Children's Hospital Aid—Records.
 League of Mercy, Salvation Army—Fruit and Candy.

DONATIONS RECEIVED FOR TUBERCULOSIS PATIENTS—EDMONTON GENERAL HOSPITAL FROM

1. The Ladies of the Junior Chamber of Commerce—Edmonton, Alberta.
2. Canadian Legion, B.E.S.L., Montgomery (Alberta No. 24) Branch—Edmonton, Alberta.
3. Mrs. J. H. Smillie, Jasper, Alberta.
4. Child Welfare Branch, City of Edmonton.
5. Mr. E. Berg, Hay River, N.W.T.
6. Women's Auxiliaries—General Hospital.
7. Concordia College, Edmonton, Alberta
8. Davidson School of Dancing, Edmonton, Alberta.
9. Y.M.C.A., Edmonton, Alberta.
10. Student Nurses—General Hospital, Edmonton, Alberta.
11. Imperial Order Daughters of the Empire—Edmonton.
12. Joyeux Noel Club—Edmonton, Alberta.
13. Bonne Aimes Club—Edmonton, Alberta.
14. St. Andrew's Rectory—Edmonton, Alberta.
15. St. John's Rectory—Edmonton, Alberta.
16. University Luther League—Edmonton, Alberta.
17. Lutheran Youth Federation—Edmonton, Alberta.
18. Provincial Command, Montgomery Branch, Canadian Legion.
19. Fort Edmonton Chapter I.O.D.E.
20. Chinese Ladies United Church Club.
21. United Church Groups.

Division of Mental Health

RANDALL R. MACLEAN, M.D., *Director.*

Separate reports are submitted for each Branch of the Division, namely:

- Eugenics Board.
- Provincial Guidance Clinics.
- Provincial Mental Hospital, Ponoka.
- Provincial Mental Institute, Edmonton.
- Provincial Auxiliary Mental Hospital, Claresholm.
- Provincial Auxiliary Mental Hospital, Raymond.
- Provincial Training School for Defectives, Red Deer.

The total patient population in the various institutions in this Division exclusive of Rosehaven, on January the 1st, 1951, was 3,369 (males 2,043; females 1,326). The total patient populations in the Institutions, exclusive of Rosehaven, on December the 31st, 1951, was 3,439 (2,068 males and 1,371 females). This represents a gain of 70 patients (25 men: 45 women). The Provincial Mental Hospital, Ponoka, admitted 654 patients (males 338; females 316) during the year. This was 7 more than in the previous year. The Provincial Mental Institute, Edmonton, admitted 282 patients (158 males; 124 female). This was 15 less than the previous year. Extensive active treatment was given to all newly admitted patients to the latter hospitals. The Provincial Training School, Red Deer, admitted 73 children (29 boys; 44 girls). This was 28 fewer than the previous year; however, two new Wards were placed under construction and should be completed in 1952. There was some increase in the number of children discharged from the Training School during the year. During the year there were 118 transfers among the various institutions. Thirty-nine patients were discharged from the Mental Hospitals and immediately accepted at Rosehaven in Camrose.

During the year there was a considerable amount of new building construction in connection with a number of the institutions. Two new dormitories for increased accommodation at the Provincial Training School, Red Deer, were placed under construction. A dormitory for approximately 90 patients was commenced at the Provincial Mental Hospital, Ponoka. Work began on the new Administration Building at the Provincial Mental Institute, Edmonton, and work continued on the Tuberculosis Unit there also. The work of renovating a building at Rosehaven, Camrose, began with a view to making accommodation for some 30 patients.

The Provincial Guidance Clinics functioned extensively during the year. Two series of Clinics were held in the Peace River Area, in addition to the many points regularly visited by the Edmonton, Ponoka, Red Deer and Calgary Clinic Staffs. Members of the Clinic Staffs participated in Public Education activities.

In general there was a shortage of trained personnel available for ward work in the various institutions. This shortage was more acute in relation to male staff.

Rosehaven, with a continuing population of approximately 200, continued to serve its very useful function of caring for the elderly Mentally ill, previously accommodated in the Mental Hospitals. During the year 39 transfers from the Mental Hospitals were made. There were 33 deaths (16 men; 17 women).

Ten meetings of the Eugenics Board were held; five of these at the Provincial Mental Hospital at Ponoka, and five at the Provincial Training School, Red Deer. A total of 84 cases was presented for the Board's consideration, two of which were deferred, making a total of 82 cases passed by the Board. Fifty-seven operations (male 16; female 41) were performed during the year. The total number of cases operated upon to December 31st, 1951 was 1,299 (male 512; female 787). The operations were performed at the Provincial Mental Hospital, Ponoka, with the exception of one, which was performed at the University of Alberta Hospital, Edmonton. The operations were performed by duly appointed Honorary Surgeons, assisted by the Medical Staff of the Provincial Mental Hospital, Ponoka.

TABULATED SUMMARY—INSTITUTIONS—MOVEMENT OF PATIENTS															
Hospital	Patients in Hosp.						Patients in Hosp.								
	Jan. 1, 1951			Admissions			Discharges			Deaths			Dec. 31, 1951		
	M.	F.	T.										M.	F.	T.
Ponoka	891	597	1488	338	316	654	242	264	506	62	26	88	919	620	1539
Oliver	950	335	1285	158	124	282	137	111	248	43	9	52	937	333	1270
Red Deer	202	163	365	29	44	73	10	19	29	9	5	14	212	183	395
Claresholm ..	.....	98	98	.....	12	12	.....	6	6	....	4	4	.....	100	100
Raymond ....	.....	133	133	.....	6	6	.....	3	3	....	1	1	.....	135	135
Total	2043	1326	3369	525	502	1027	389	403	792	114	45	159	2068	1371	3439
Rosehaven ..	109	95	204	22	23	45	4	6	10	16	17	33	111	95	206
Total in- cluding Rose- haven	2152	1421	3573	547	525	1072	393	409	802	130	62	192	2179	1466	3645

NOTE: Admissions in this Table Include "Transfers In".
Discharges in this Table Include "Transfers Out".

PROVINCIAL MENTAL HOSPITAL, PONOKA

Patient Population Changes.

The resident patient population on January 1st, 1951 was 1,488, of whom 891 were men and 597 women. On December 31st, 1951 there were in residence 1,539 patients, of whom 919 were men and 620 women. There was, accordingly, an overall increase of 51 in patient population.

Admission of Patients.

Exclusive of transfers from other mental institutions in the Province, there were 608 admissions, almost the same number as in 1950. Of these, 323 were men, and 285 women. One hundred and nine patients were admitted voluntarily; 131 by Medical Certificates; and 360 by Warrant of the Attorney General. The admission of eight was under "The Mental Defectives Act", and 47 were transferred to this Hospital from other Provincial Mental Institutions. As compared with 1950, the percentage of patients admitted with senile disorders rose from approximately 12 per cent to approximately 16 per cent of the total. The incidence of syphilitic disorders

was low, the number of alcoholics admitted small, and almost the same as in 1950. There was a decrease in the number of voluntary patients. Increased Guidance Clinic activity, and other facilities elsewhere, may account for this.

Separation of Patients.

Four hundred and fifty-nine patients were discharged, and 47 transferred to other Provincial Mental Institutions. Eighty-eight patients died.

Accidents and Elopements.

Twenty-three patients suffered from fractures, divided almost equally between the sexes. There were no other serious accidents.

There were two suicidal deaths.

Twelve patients left the hospital without permission, and most of these were returned by the Royal Canadian Mounted Police, or the staff of the hospital.

General Health.

The general health of the patients was very good, with no epidemics. It was noted that a considerable number of those under treatment for Tuberculosis showed a decided improvement in their tuberculous lesions. A more intensive nursing program on these wards may have accounted for the improvement.

Clinical Work.

The program was active and every effort was exerted to keep abreast of new developments. Electric and Insulin Shock Therapies were widely used. Due to the small number of Neurosyphilitics admitted, Malarial Fever Therapy was abandoned, and the administration of antibiotics substituted. The patients were given the advantage of all necessary diagnostic and treatment facilities. There were some encouraging results from pre-frontal Lobotomy Operations. Minor surgery was carried out by the regular medical staff. Visiting surgeons from Calgary and Edmonton performed major surgical procedures. The addition of a Psychologist to the staff filled a long felt need.

Occupational Therapy.

There were over 100 patients in daily attendance at organized classes. The utilization of an increased variety of crafts showed gratifying results in patient response. Organized classes in painting were instituted, and because of the interest shown, greater emphasis is planned in this particular field in the future. The Library and Canteen were moved to more central and suitable locations. Whenever possible, occupational activities were extended to the wards for patients unable to attend organized classes.

Recreational Therapy and Physical Training.

This Department maintained a very active program which, in one form or another, was available to almost every patient in the hospital. The activities were varied, and in keeping with the needs of the individuals or groups, and in conformity with the season of the year. From time to time, outside agencies gave assistance to the staff.

Beauty Parlour.

The value of this Department is firmly established. Nearly

10,000 procedures were carried out during the year. The importance of this facility as a therapeutic agent is emphasized.

Religious Services.

Regular services were conducted by visiting clergymen of the major denominations. These were well attended, and greatly appreciated by the patients. Many patients were seen individually by the Clergy, and all possible help was provided to facilitate such calls.

Social Service.

This Department of one Worker continued to give excellent service. A large number of interviews were held with prospective patients, before their admission to the hospital. Many discharged patients were visited. With only one Worker, it was obviously necessary to utilize his services selectively, but it was felt that the rehabilitation of many patients was promoted by the Worker.

Dental Services.

Dental treatment was carried on regularly throughout the patient population. The Dentist also visited the Provincial Auxiliary Hospitals at Claresholm and Raymond during the year. The number of dental operations performed was 4,161.

X-Ray Services.

Each year, the work of this Department has increased. During 1951, 4,000 plates were taken. This included over 2,600 Chest X-rays. All Chest Plates were referred to the Medical Staff of the Central Alberta Sanatorium for interpretation. This has been a big factor in the very effective control of Tuberculosis, now in evidence at this Hospital.

Laboratory Services.

Laboratory services were conducted by a Technician. Six thousand, six hundred and sixty-three examinations were carried out. The Laboratory provided a most effective service within its obvious limitations. The services of the Provincial Laboratory, and the Department of Biochemistry at the University of Alberta were utilized for some of the more intricate procedures. There were no applicants for the position of Pathologist.

Nurses' Training School.

There were no changes in the teaching program. The staff consisted of three qualified instructors who function under the direction of the Superintendent of Nurses. Assistance in teaching was given by the members of the Medical Staff, and other professional personnel. Instruction was given to 23 student nurses of this hospital, and 23 student attendants. In addition, 12 registered Nurses completed the Post-Graduate Course in Psychiatric Nursing, and 26 affiliate students from the Galt and Archer Memorial Hospitals received an eight week period of instruction. An appropriate instruction program was also extended to ward aides. Seventeen Public Health Students from the University of Alberta spent a period of two weeks at this hospital, under the Direction of the School of Nursing. Nine nurses received Diplomas in General and Psychiatric Nursing, 12 registered nurses and 10 male attendants received Certificates in Psychiatric Nursing at the annual Graduation Exercises.

Visitors.

A large number of relatives and friends visited patients throughout the year. Visiting hours were maintained daily.

There were many distinguished visitors to the hospital. Premier E. C. Manning inspected the Hospital, and later addressed the Graduating Class at the Annual Graduation Exercises. On a number of occasions the hospital was visited by the Honourable W. W. Cross, Minister of Health, and by Dr. M. R. Bow, the Deputy Minister of Health. Dr. Randall R. MacLean, Director of the Division of Mental Health, carried out many inspections. At such times, his advice was often sought. His counsel and guidance were greatly appreciated and of exceeding value.

The Visiting Board made a careful inspection of the Hospital, and conducted a searching inquiry on the occasion of its annual visit. The senior members of the staff were given ample opportunity to discuss their problems with the Board.

Eugenics Board.

Five meetings were held at this hospital by the Eugenics Board during the year. Fifty-one patients were presented, of whom 21 were male and 30 female. Operations for sexual sterilization were performed on 56 patients at this hospital, of which number 16 male and 40 female.

Maintenance Department and Fire Protection.

The buildings were well maintained and emphasis was placed on redecorating the hospital interior.

Regular practises were held by the Fire Department and equipment was kept in a proper state of repair.

Business Office.

Some re-organization was effected in this Department for the purpose of increased efficiency. A high standard was maintained. The Business Superintendent directly supervised the Farm and most of the ancillary services.

Farm and Gardens.

The farming operations in general were satisfactory, although the yield of vegetables was limited by unfavourable weather.

Ancillary Services.

These services operated satisfactorily as in previous years.

The Linen Room was moved to new quarters in the former Laundry building. The new Laundry gave good service.

The Cannery was operated during the summer months.

The Sewing Room was moved to the former Ironing Room in the old Laundry and functioned well there.

The Print Shop adequately met the needs of the Hospital, and to some extent those of other branches of the Health Department.

Chief Engineer's Department—Public Works.

Many changes were made during the year to increase the efficiency of the heating plant, with resultant benefit to the hospital. At all times this Department co-operated to the utmost with the staff of the Public Health Department.

Conclusion.

There were no changes of consequence in the administrative policy. Every effort was made to promote the welfare of the patients, with a view to re-establishing them in society. The morale of the members of the staff was excellent, and this was reflected in their care of the patients. Those responsible for the administration of the hospital were very grateful for the loyal cooperation of the staff and for the help and direction received from the officers of the Department of Public Health.

PROVINCIAL MENTAL INSTITUTE, EDMONTON

Patient Population Changes.

On December 31st, 1951, there were in residence 937 men and 333 women. On leave were 22 men and 19 women, making a total patient population at the end of the year of 959 men and 352 women. This gives a grand total of 1,311 patients. This is a gain of two over the previous year.

During the year there were 282 admissions. In addition a total of 96 cases were remanded by the authorities for observation and examination. Ten juveniles were admitted through the Department of Child Welfare and the Juvenile Offenders Branch. This gives a total of 388 admissions for the year.

There were 244 discharges and only four transfers (Rosehaven). There were 52 deaths. These were practically all in the old age group and were due to chronic degenerative diseases.

General Health.

This has been good. There were no epidemics. Routine chest X-rays were done on all admissions and an annual check done on all patients in residence. The Mobile Clinic x-rayed approximately 1,000 cases.

Accidents and Elopements.

There were no accidental deaths.

Treatment of Patients.

Electric shock treatments were given to 331 patients, and insulin to 142 patients. A considerable number were given more than one series. Hydrotherapy was used extensively. Combined electric shock and insulin was given when needed. In addition, a considerable number of more chronic patients (not now patients) were given periodic supportive treatments.

Occupational Therapy.

This department has continued to be very active. The average daily attendance in the department was 85 to 90, with special attention being paid to new patients.

Recreational Activities.

This has continued to be very active also. The full time daily schedule was kept up. Activities included not only athletic events but social evenings and movies. The Department of Veterans Affairs has continued to provide us with weekly shows and one

dance per month. Parties of patients have been sent to most of the important athletic events in the city.

Library.

More books are being added. Library facilities are in full use.

Beauty Parlour.

This is now being operated on a full time basis. It is intended to extend these services shortly.

Religious Services.

The United and Anglican Churches provided services on alternate Sundays. Roman Catholic services were held once a month. The Luthern Church held services once a month. Jewish organizations visited the hospital frequently.

X-Ray Department.

This department has continued very busy. A total of 2,009 examinations were made during the year. This is an increase of 25% in the work. This department also looked after the diathermy treatments. A total of 427 treatments were given.

Laboratory.

A total of 5,182 examinations were carried out during the year. This is an increase of approximately 50% over the work of the previous year. Tuberculin tests were carried out on all new staff and B.C.G. vaccine given where indicated.

Surgical Service.

Several cases were referred to the University Hospital for major surgery. As usual, a large amount of minor surgical and fracture work was done by the hospital.

Dental Department.

A total of 2,767 treatments were carried out. All types of dental work were done. All patients in the Hospital were seen and treated during the year. Liaison with the School of Dentistry continued and Clinics were held here for dental students.

Training School.

A total of three women and eight men graduated in psychiatric nursing, completing the three year course. All ward staff are required to take this course or leave the service by the end of the year.

Department of Building Maintenance.

The maintenance work has been well kept up through the year. Considerably more painting than usual has been done. Work on the new Tuberculosis dormitory has proceeded ahead of schedule.

New construction during the year included not only work on the Tuberculosis dormitory, but also construction of a much needed recreational hall was begun and it has since been taken into use. Alterations to the main kitchen were completed. In addition the maintenance department completed two cottages, one for the Forestry Branch of the Department of Agriculture and one for the Poultry Plant.

Fire Protection.

Fire practices were held at regular intervals. A new and up-to-date fire truck was purchased. Inspections were carried out by the Fire Marshall's Branch.

Farm.

The rebuilding of the dairy herd has progressed very satisfactorily. All our non-registered stock has been eliminated. The crop situation was excellent and all but ten per cent was threshed before the fall weather became bad. This ten per cent was threshed in the early spring of the following year.

Garden.

The production of vegetables was excellent during the year and the bulk of this kept well over the winter. The grounds were kept as usual in beautiful condition.

Police Court.

Consultations were provided to the Provincial Gaol at Fort Saskatchewan.

Department of Veterans Affairs.

The D.V.A. recreational department has continued to assist, not only by providing activities such as movies, dances, shows; but also by supplying equipment.

PROVINCIAL AUXILIARY MENTAL HOSPITAL, RAYMOND

Movement of Patients.

On January 1st, 1951 there were 133 patients in residence. There were two re-admissions, one by Medical Certificates and one under the Mental Defectives Act. There were two first admissions, one by Medical Certificates and one under the Mental Defectives Act. Three patients were transferred to the Provincial Mental Hospital, Ponoka, and two patients received from the hospital. There was one death. This left in residence December 31st, 1951, 135 patients.

General Health.

Patients and staff were inoculated against Typhoid Fever. The Mobile X-Ray Unit took chest X-rays of all patients and staff. There was one death. General health of the patients remained satisfactory.

Dentistry.

A complete dental check-up and all work necessary was done in August.

Occupational Therapy.

The Occupational Parlor accommodates all patients who are able to sew.

Library.

The Patients' Library is available to those interested in reading.

Religious Services.

These are held regularly.

Recreation and Entertainment.

Available to those capable of taking advantage of it.

PROVINCIAL AUXILIARY MENTAL HOSPITAL,
CLARESHOLM.

Movement of Patients.

In residence on January 1st, 1951, there were 98 patients. In residence on December 31st, there were 101 patients. There were nine patients transferred from the Provincial Mental Hospital, Ponoka, to this hospital.

There were three patients admitted—two were admitted by Medical Certificates and one was a Mental Defective.

One patient was discharged during the year as unimproved.

Five patients were transferred to the Provincial Mental Hospital, Ponoka. Two of these patients required surgery and three were disturbed and were returned for further psychiatric treatment.

There were four deaths due to degenerative conditions.

General Health.

The general health of the patients was very good throughout the year.

Occupational Department.

The Occupational Therapy Department maintained its high standard of work.

Recreational Activities.

Were carried out on a seasonal basis.

Religious Services.

Denominational services were held regularly.

Dentistry.

A complete check-up and all necessary work completed.

Fire Protection.

Regular fire practises are held. Fire fighting equipment is checked regularly. Another fire hydrant was installed on the grounds last September.

Buildings.

The maintenance staff have kept the buildings in good repair and the necessary re-decorating done.

Gardens and Grounds.

The late spring and the exceptionally wet year caused the vegetables to mature late this year. The continuous rain in the fall lessened the harvest as well. There will be sufficient potatoes to supply the hospital throughout the year.

Visitors.

The hospital has been visited by Dr. R. R. MacLean, Director, Division of Mental Health, and his help and advice are greatly appreciated.

The Eugenics Board acting as a Visiting Board made rounds of the hospital and grounds.

Relatives and friends visited the patients during the year.

PROVINCIAL TRAINING SCHOOL, RED DEER

Patient Population Changes.

The total population of the Training School as of December 31st, 1951, was 395. This represents an increase of 30 over the total population on that date in 1950.

A total of 73 Defectives, 29 male and 44 female, were admitted. Of this total there were 55 first admissions, 16 re-admissions, and 2 transfers from Provincial Mental Hospital and Institutions.

During the year 27 Defectives were discharged and 2 were transferred to the Provincial Mental Hospital, Ponoka.

A total of 14 deaths occurred, 9 male 5 female.

Detail concerning the above may be found in Tables I, III, IV, V, VI, and VII at the end of this report.

Applications for Admission.

Ninety-four applications for Admission were received during 1951.

Eugenics Board Visits.

The Eugenics Board visited the School on five occasions. Thirty-two cases, 13 male and 19 female, were presented and passed for Eugenics operation. Of this number one was an out-patient. During the year 16 Salpingectomies and 13 Casectomies were performed.

Staff Changes.

The Medical Superintendent, who was in office since August, 1949, resigned on November 30th to accept a post in the United States.

The services of both a qualified Dietitian and a certified Occupational Therapist were secured during 1951.

Dental Care.

As during 1950, a local dentist serviced the school on a part-time basis. The dental work accomplished during the year is tabulated below:

Oral Examinations	215
Fillings	96
Scalings	74
Extractions	433
Prophylaxis	70
Grind Bite	24
Gingivectomy: 2 cases (9 treatments)	18

Training Programme for Nurses and Attendants.

The training programme for nurses and attendants remains much the same as last year.

Training Programme for Trainees.

The general structure of this training programme is the same as outlined in the Annual Report for 1950.

Academic Training and Sense Training.

There was little change from last year. The curricula were revised to some extent and handicraft sections added.

Recreation.

As in 1950, a full recreational programme was in effect. All

ambulant, middle and high grade trainees have regular periods under the supervision of the Recreational Instructress.

Occupational Therapy.

These classes increased in their scope and interest.

Farm Instruction.

A new farm instructor was appointed in June, 1951. The instruction and supervision of the farm boys has improved, as has their general attitude and behaviour.

Guidance.

Frequent guidance interviews were carried out with those trainees who presented behavioural difficulties or who had personal worries or complaints.

Social Work Services.

The School continued to benefit from the services of a qualified Social Worker. The following is a summary of the placements, visits, etc., made by the latter.

18	permanent or long term placements
86	temporary placements, ranging from 3 days to 9 months, for 39 trainees
353	adjustment and after care visits were made

Extra School Activity.

The part-time Guidance Clinic which is operated in Red Deer by members of the Training School staff, had a busy and successful year. A total of 100 Clinics were held and 398 individuals interviews carried out. In addition 4 Clinics were held at Rocky Mountain House, entailing 16 interviews.

Electro Convulsive therapy was administered to seven patients, with favorable results in all but one case.

A number of professional groups and other visitors have been shown through the School and given talks by senior staff members. Several women's groups and Home and School Association have been addressed.

New Construction.

New Wards.—The construction of two new villa-type wards to house mid- and low-grade trainees was started in September.

Power House.—The new Power House was completed and is now in operation.

Laundry.—An addition was built to the School laundry which has almost doubled the original size of this building.

Farm and Garden Produce.

Crop production in 1951 was exceptionally good.

ROSEHAVEN, CAMROSE

Movement of Residents.

On January 1st, 1951, the resident population at Rosehaven numbered 204, of which 109 were men and 95 women. The total number in residence December 31st, 1951, was 306; 111 men, 95 women.

Admissions to Rosehaven during the year numbered 45, 34 of these were admitted from Provincial Mental Hospital, Ponoka, 5

from Provincial Mental Institute, Edmonton, and 6 returned from Leave of Absence.

Discharged during the year totalled 43, 33 of these were caused by death and 10 were discharged on leave of absence.

Deaths were due to degenerative causes, Seven residents were on leave of absence at December 31st, 1951.

Accidents and Elopements.

During the year a number of residents had accidents caused either by falls or as a result of interference from other residents. Of nine accidents requiring medical attention, six were fractures and three lacerations requiring suturing. Numerous minor accidents resulted in contusions and abrasions. Three residents left the grounds without permission but were returned without incident by the staff.

General Health.

The general health of the residents has been fairly good considering the age group. There is, however, a noticeable mental and physical decline in the majority of residents. An average of 18 residents required bed care in a month, each averaging 12 days in bed. Fourteen residents required hospital care at St. Mary's General Hospital either for surgery, cast application or diagnostic treatment. Necessary x-ray work and laboratory tests were done at St. Mary's.

Medical attention was supplied by a doctor from the Smith Clinic.

Dental examination on all residents was carried out by Dr. Scott, and if possible, dental care was completed. Emergency work was done locally.

Occupational Therapy.

There have been no organized occupational classes held, but individual residents were encouraged to do handiwork.

A group of 10 to 20 men assisted with garden work and on the grounds.

Some twenty-five individuals assisted in various departments and with light housekeeping duties.

Religious Services.

Weekly protestant church services were arranged by the Camrose Ministerial Association. Roman Catholic Mass was conducted several times throughout the year.

Recreation.

Several parties, one at Easter, one at Christmas and one in the form of a lawn social were held. A party was arranged each month for those whose birthday fell in that month.

Walking parties and lawn groups were taken out when weather permitted.

Movies were shown by a church group on one or two occasions.

Garden and Grounds.

Garden and grounds showed little change from the previous year. Only a very small supply of fresh vegetables was supplied from the vegetable garden as much damage was done by hail early in the season.

Staff.

There has been no shortage of staff during the year. Six staff members resigned and leave of absence was granted the Assistant Matron for a period of six months. In the first group, replacements were easily procured but in the latter, no suitable replacement was found.

Health of staff members was satisfactory.

Visitors.

Visits were made to Rosehaven by Dr. R. R. MacLean, Director, Mental Health Division, Province of Alberta, at intervals throughout the year.

The Eugenics Board, as a visiting committee, made their yearly visit in the fall.

Relatives and friends as well as local church groups visited from time to time.

Provincial Guidance Clinics

RANDALL R. MACLEAN, M.D., *Director, Division of Mental Health*

The Provincial Guidance Clinics carried on in a regular way during 1951. No new Clinic centers were opened but those established were maintained. There was some decrease in the number of new cases examined as compared to 1950. This is considered to have been due to two factors, mainly. Extremely unfavourable weather in the first few months of the year caused a number of Clinics to be light, or to be cancelled. Then in the Southern Zone it did not prove possible to secure a full-time Psychiatrist to replace Dr. G. D. Carson and the work there showed a decrease in the early months of the year. This Clinic load increased again in the second half of the year in this Zone.

The headquarters of the Northern Zone (Edmonton and District) continued in Edmonton with Dr. A. Ralph Schrag in direct charge of the work there. The Central Zone (Ponoka and Red Deer District) continued to be serviced from the Provincial Mental Hospital Ponoka and the Provincial Training School, Red Deer. Dr. L. J. le Vann held half-day Clinics each week in Red Deer on Wednesdays and Thursdays. Clinics at other points were much less frequent in this Zone. In the Southern Zone (Calgary and District) the headquarters remained in Calgary, with Mr. E. J. Kibblewhite, Chief Clinic Psychologist, in acting charge. Further details in regard to the work in each Zone are given as below.

Members of the Clinic Staff helped in general community educational work by addressing community groups and assisting in radio programs. Also, groups of nurses-in-training were seen at both the Edmonton and Calgary headquarters for instruction in the Clinic work.

There has been an increase in the number of cases seen previously, who have returned to the Clinic for further consultation. This trend is believed a healthy one and may be expected to show some further increase.

During 1951, of the new cases examined, 12.8% were in the pre-school age group, 71.1% in the school age group and 16.1% in the adult group. Of the whole group 69.8% were under fifteen years. These percentages are believed significant because the Clinics strive to emphasize preventive work in mental health.

National Health Grants gave material assistance to the Clinic program, particularly in Edmonton and District, but also, with grants for books, equipment and additional stenographic help in Calgary.

EDMONTON AND DISTRICT GUIDANCE CLINIC (Northern Zone)

A total of 703 new cases and 148 re-registered cases was seen for the Zone, with a work load of 4,781. Psychotherapy treatment was continued on as broad a basis as staff and quarters permitted. Results continued to be encouraging. 43% of the new cases examin-

ed in this Zone were referred by school authorities; 15.4% by other community agencies; 15% by private physicians; 13.4% attended voluntarily and the remainder were from other sources.

City of Edmonton.

At the Edmonton headquarters 393 new cases were examined and 102 old cases were re-registered. The total work load was 3,529. Approximately one-third of the Clinic time was available for Edmonton and the immediate surrounding district, as in 1950.

Barrhead-Westlock.

Clinics were held at Barrhead only, during this year. Nineteen cases were examined altogether.

Camrose-Wetaskiwin.

No Clinic were held at Camrose during 1951. 44 new cases were seen at Wetaskiwin with a total work load of 157.

Holden-Wainwright.

Clinics were held at both these points and 26 new cases were examined, plus 6 re-registered cases, with a total work load of 124.

Vegreville-Vermilion.

At the Clinics held at these points 55 new cases and 10 re-registered cases were dealt with, giving a total work load of 232.

Peace River-Grande Prairie.

Two trips, each of two weeks duration, were made, one in the late Spring and one in the Fall. One hundred and thirty-one new cases were examined and 16 re-registered cases. The total work load for the two trips was 519.

Athabasca-Lac La Biche.

Twelve cases were examined at these points.

Bonnyville-Smoky Lake-St. Paul.

Twenty-nine new cases, plus 6 re-registered cases, were dealt with at these points during the year. The total work load was 117.

PONOKA AND RED DEER DISTRICT GUIDANCE CLINICS (Central Zone)

The Clinics in this Zone were handled from the Provincial Mental Hospital and the Provincial Training School, as in previous years. The Clinics held at Castor, Ponoka, Rimbey and Stettler were arranged and carried through from the Provincial Mental Hospital, while those at Red Deer and Rocky Mountain House were handled from the Provincial Training School. At Red Deer, Clinics were held regularly on Wednesday and Thursday afternoons. At the other points involved, Clinics were held on certain days scheduled in advance.

Red Deer-Rocky Mountain House.

There were 114 new and 40 re-registered cases examined at these two places during the year, with a total work load of 669. This includes a number of psychotherapy periods with clients at the Red Deer Clinics.

Ponoka-Rimbey.

Sixteen new cases were examined and a number of re-registered cases were seen.

Castor-Stettler.

Three Clinics were held at each of these points during the year. A total of 24 new, plus a number of re-registered cases, were seen with a work load of 74.

CALGARY AND DISTRICT GUIDANCE CLINICS (Southern Zone)

The Provincial Guidance Clinics in the Southern Zone were without the services of a full-time Psychiatrist during 1951. During the year Dr. M. Carnat worked each Wednesday afternoon at the Calgary Clinic. Mr. E. J. Kibblewhite, Chief Clinic Psychologist, was in acting charge, assisting the other staff members in handling the work. There was a drop in cases referred early in the year because of the absence of a Psychiatrist, but this drop was overcome largely, as time passed.

The total new cases examined during the year was 404, being 242 male and 162 female cases. In addition 172 cases previously seen were in for further advice on treatment. The total work load for the year was 2,809, including 440 psychological examinations. During the year, some 13% of the new cases were referred by private physicians, 42% by school authorities, 30% by community agencies other than schools, 10% attended voluntarily and 5% were referred from other sources.

City of Calgary.

This is the headquarters for the Southern Zone. During 1951 there were 180 new cases and 119 cases previously seen, handled at the Clinic for Calgary and the surrounding area. The total work load was 1,864, which includes a higher proportion of psychotherapy periods than at the other Clinic centres.

Lethbridge.

Seven trips were made to Lethbridge during 1951. A total of 70 cases was examined during the year. The work load was 260.

Medicine Hat-Brooks.

At these centers 93 new cases and 21 re-registered cases were seen during the year. The work load was 381.

Claresholm-High River.

A total of 32 new cases and 11 re-registered cases were seen at these points, with a total work load of 136.

Pincher Creek-Crow's Nest Pass.

Four new and two re-registered cases were seen.

Didsbury.

Twenty-one new cases and seven re-registered were seen during the year. This is ten fewer cases than were examined in 1950.

Drumheller.

Thirteen new and three re-registered cases were dealt with, giving a total work load of forty-nine.

TABLE 1.

SUMMARY OF NEW AND RE-REGISTERED CASES EXAMINED, TREATMENT PERIOD, INTERVIEWS, PSYCHOLOGICAL EXAMINATIONS, AND TOTAL WORK LOAD OF CLINICS

Clinic Districts	New Cases			Re-register- ed Cases			Distribution of Work				Total Work Load
	M.	F.	T.	M.	F.	T.	Pat.	Col.	Gen.	P.E.	
Edmonton and District ..	427	276	703	86	62	148	1313	1799	925	744	4781
Calgary and District ..	242	162	404	105	67	172	943	1069	358	440	2809
Ponoka and Red Deer District .	84	70	154	8	6	14	453	246	1	84	784
Total	753	508	1261	199	135	334	2709	3113	1284	1268	8374

NOTES:

- Total new cases examined since the Clinics opened in 1929 is now 11,821.
- Edmonton and District includes all the area served from Wetaskiwin north. This is the Northern Zone. It includes Clinics held in the Peace River-Grande Prairie area, and such points as Athabasca, Barrhead, Bonnyville, Holden, Lac La Biche, Smoky Lake, St. Paul, Vegreville, Vermilion, Wainwright and Wetaskiwin.
- Calgary and District includes the area served from Didsbury south. This is the Southern Zone. It includes Clinics held at such points as Brooks, Claresholm, Didsbury, Drumheller, High River, Lethbridge, Medicine Hat and Pincher Creek.
- Ponoka and Red Deer District, or the Central Zone, includes the area from Didsbury on the south to Wetaskiwin on the north. It includes Clinics at such points as Castor, Ponoka, Stettler, Rimbey, Red Deer, and Rocky Mountain House.
- Re-registered cases are those that have been examined previously at a Clinic, and are seen again for further consultation or treatment.
- Pat.—Patients contacts including treatment periods.
- Col.—Collateral, or contacts with patient's parents, or relative, or with others closely interested.
- Gen.—General contacts regarding Clinic activities and work, including those with other Agencies and Community Services.
- P.E.—Psychological examinations and tests.
- Total Work Load—This includes patient interviews and treatment periods, interviews with parents and relatives, interviews with other Agencies concerning patients or Clinic work, and psychological examinations, by Clinic Staff members. It includes as well talks, addresses and teaching periods by Staff members.

The Eugenics Board

J. M. MACEachran, M.A., Ph.D., *Chairman*

The Eugenics Board for the Province of Alberta held ten meetings during the year of 1951. Five meetings were held at the Provincial Mental Hospital, Ponoka, and an equal number at the Provincial Training School, Red Deer. The dates of the meetings held during 1951 are as follows:

- 9 February, 1951—The Provincial Mental Hospital, Ponoka.
- 9 February, 1951—The Provincial Training School, Red Deer.
- 13 April, 1951—The Provincial Mental Hospital, Ponoka.
- 13 April, 1951—The Provincial Training School, Red Deer.
- 22 June, 1951—Provincial Mental Hospital, Ponoka.
- 22 June, 1951—The Provincial Training School, Red Deer.
- 1 October, 1951—The Provincial Training School, Red Deer.
- 3 October, 1951—The Provincial Mental Hospital, Ponoka.
- 7 December, 1951—The Provincial Mental Hospital, Ponoka.
- 7 December, 1951—The Provincial Training School, Red Deer.

Cases Presented.

The Board considered 84 cases, 2 female cases being deferred. There were 34 male and 48 female cases, the majority of which were passed subject to the consent of the patient or parent or guardian, or to both patient and parent or guardian.

Of the 82 cases passed by the Board during the year, 53 had been first examined at a Provincial Guidance Clinic, although some of these had been institutionalized before presentation. This group of 53 cases was made up of 20 males and 33 females.

Operations.

Operations were performed on 57 cases during the year, 16 being male and 41 female. All of these operations, with the exception of one, were performed at the Provincial Mental Hospital, Ponoka. The one in question was performed at the University Hospital, Edmonton, at the request of those concerned and the patient's husband assumed the responsibility of hospital expenses.

Of the 57 cases operated upon during the year 47 had been presented and passed in 1951; 8 had been presented and passed in 1950; one had been presented and passed in 1938; and one had been presented and passed in 1936.

The surgical operations mentioned above were performed by the Surgical Consultants Dr. J. W. Richardson, of Calgary, or Dr. J. Ross Vant, of Edmonton.

As in previous years the Eugenics Board wishes to express its sincere appreciation and thanks to the Director, Division of Mental Health, to the Medical Superintendents and their respective staffs, and the Guidance Clinics, for their cooperation in connection with the work of the Eugenics Board.

Tables.

A tabular summary of the work of the Eugenics Board to December 31st, 1951 is appended.

CASES PRESENTED AND PASSED

(To 31 December, 1951)

	Yearly Totals			Cumulative Totals		
	Male	Female	Totals	Male	Female	Totals
1929-1933	87	201	288	87	201	288
1934-1938	557	438	995	644	639	1283
1939-1943	339	299	638	983	938	1921
1944	56	73	129	1039	1011	2050
1945	54	64	118	1093	1075	2168
1946	52	53	105	1145	1128	2273
1947	38	53	91	1183	1181	2364
1948	37	68	105	1220	1240	2469
1949	52	57	109	1272	1306	2578
1950	37	60	97	1309	1366	2675
1951	34	48	82	1343	1414	2757

OPERATIONS ONLY

(To 31 December, 1951)

	Yearly Totals			Cumulative Totals		
	Male	Female	Totals	Male	Female	Totals
1929-1933	48	158	206	48	158	206
1934-1938	198	240	438	246	398	644
1939-1943	13	27	40	381	576	957
1944	18	29	47	399	605	1004
1945	24	31	55	423	636	1059
1946	122	151	273	368	549	917
1947	16	15	31	439	651	1090
1948	16	22	38	455	673	1128
1949	20	27	47	475	700	1175
1950	21	46	67	496	746	1242
1951	16	41	57	512	787	1299

ANNUAL REPORT
OF THE
Vital Statistics Branch
OF THE
DEPARTMENT OF PUBLIC HEALTH
PROVINCE OF ALBERTA
1951

CONTENTS

	Page
Introductory Letter	5
Population Statistics by Divisions	8
Summary of Births, Marriages and Deaths in Alberta	12
Births—By Months	14
Births—Legitimate, Illegitimate and Plural	17
Births—According to Birthplace of Parents	18
Births—According to Ages of Parents	20
Births—According to Racial Origin of Parents	22
Births—Non-resident Mothers in Alberta	24
Births—Resident and non-resident Mothers in Cities	24
Births—Order of Birth—By Age of Mother	25
Deaths of Children—Specified Causes, by Months	26
Infantile Death Rates	27
Deaths of Children—Specified Causes, by Ages	28
Deaths of Children—According to Residence of Decedents	29
Deaths—Causes by Sex and Age in Whole Province	30
Deaths—Causes by Months for Whole Province	39
Deaths—Causes by Sex and Age in Edmonton	48
Deaths—Causes by Sex and Age in Calgary	57
Deaths—Accidental for Whole Province	66
Deaths—According to Residence of Decedents	68
Deaths—Non-resident in Alberta	69
Deaths—From Specified Causes by Province of Residence	70
Death Rates from Certain Specified Causes by Provinces	71
Deaths—Principal Causes, Numbers and Rates	73
Marriages—By Months	74
Marriages—By Conjugal Condition	74
Marriages—By Ages	75
Marriages—By Birthplace	76
Marriages—By Religious denominations	78
Divorces	80
Births—Indian	81
Deaths—Indian Children by Specified Causes	81
Deaths—Indians by Sex and Age	82
Deaths—Half-breeds by Sex and Age	91
Birth, Marriage, Death and Other Rates for Various Years	100
Ratio of Males to Female Births	102

Vital Statistics Division

(ARTHUR PACKFORD, *Deputy Registrar General*)

This is the 47th Annual Report of the Vital Statistics Division of the Department of Public Health, and is for the year 1951.

The Report shows a large increase in the number of births and a small increase in the number of marriages and deaths. The birth rate is the highest of the Provinces west of Quebec, and the marriage rate is the highest and the death rate the lowest of all the Provinces. There was a considerable decrease in the deaths from communicable diseases, with the exception of influenza and pneumonia. Heart diseases and cancer show a slight increase.

POPULATION

The Dominion Government Census taken on June 1, 1951, shows the population to be 939,501, an increase of 143,332 over the 1941 census figure of 796,169. On page 9 is a table showing the population by Census Divisions, Municipalities, Towns and Villages for the Census years 1941 and 1951.

BIRTHS

The number of children born to residents of the Province was 27,003; the rate being 28.7 per 1,000 population, the same as the previous year, but the number of births exceeded the 1950 total by 1,379. Indian births numbered 1,334; male births numbered 13,760 and female births 13,243; the ratio being 1,039 male to each 1,000 females. Multiple births comprised 350 twin births and there were four cases of triplets. Illegitimate births numbered 1,272, 87 more than the previous year; the rate being 4.7 of all live births.

The number of births to residents of the four large cities were as follows: Edmonton, 5,089; Calgary, 3,649; Lethbridge, 701; Medicine Hat, 399. The total number of births in these cities were: Edmonton, 7,513; Calgary, 4,725; Lethbridge, 1,275; Medicine Hat, 669.

The number of legal adoptions in the Province was 754, and 24 Alberta-born children were adopted elsewhere. 831 delayed registrations of birth were completed , 310 legal changes of name were recorded, and 385 changes in Christian names were filed.

The following table shows the birth rates for Canada, the Provinces and certain other countries for 1951:

BIRTH RATES			
Canada	27.2	Australia	22.9
Newfoundland	32.5	New Zealand	24.4
Prince Edward Island	27.1	United States	24.5
Nova Scotia	26.6	Belgium	16.1
New Brunswick	31.2	Denmark	17.8
Quebec	29.8	Finland	22.8
Ontario	25.0	France	19.5
Manitoba	25.7	Italy	18.1
Saskatchewan	26.1	Netherlands	22.3
Alberta	28.7	Austria	14.6
British Columbia	24.1	Norway	18.5
England and Wales	15.5	Portugal	24.1
Scotland	17.7	Spain	20.1
Northern Ireland	20.7	Sweden	15.6
Eire	21.2	Switzerland	17.2

DIVORCES

There were 589 Final Decrees of Divorce granted during the year, 39 more than the previous year but 143 less than the average for the preceding five years. 13 Decress of Nullity were also granted.

MARRIAGES

There were 9,305 marriages registered during the year, being 11 more than the previous year and 224 more than the average of the preceding five years. The rate per 1,000 population was 9.9, slightly less than the previous year's rate of 10.4. Of the Bridegrooms 97 were 18 years of age or under, and 200 of the Brides were 16 years of age or under. 2,395 were 17 to 19 years of age, and 4,018 were 20 to 24 years of age. 151 of the Bridegrooms and 79 of the Brides were over 60; 12 of the Grooms and 2 of the Brides were over 75. Of the Bridegrooms, 91.3 were bachelors, 4.0 were widowers and 4.7 were divorced. 90.4 of the Brides were spinsters, 5.0 were widows and 4.5 were divorced. The number of marriages in the four large cities were: Edmonton, 5,089; Calgary, 3,649; Lethbridge, 701, and Medicine Hat, 399.

MARRIAGE RATES

Canada	9.2	United States	10.6
Newfoundland	7.0	Australia	9.2
Prince Edward Island	5.9	New Zealand	8.9
Nova Scotia	7.9	Belgium	7.9
New Brunswick	8.5	Denmark	8.1
Quebec	8.8	Finland	8.0
Ontario	9.8	France	7.5
Manitoba	9.5	Italy	6.9
Saskatchewan	8.2	Netherlands	8.8
Alberta	9.9	Austria	9.1
British Columbia	9.7	Norway	8.3
England and Wales	8.2	Spain	7.5
Scotland	8.2	Sweden	7.6

DEATHS

There were 7,167 deaths registered during the year, 374 of these being Indians. Of these deaths, 4,429 were males and 2,738 were females. There were 311 more deaths than in the previous year and 351 more than the average for the previous five years. The death rate was 7.6 per 1,000 population; the rate for 1950 being 7.7. 622 of the males and 506 of the females were over 80 years of age and 3 males and 2 females were over 100.

The number of deaths of residents of the four large cities were as follows: Edmonton, 1,152; Calgary, 1,146; Lethbridge, 184; and Medicine Hat, 140. The total number of deaths which occurred in these cities were: Edmonton, 1,607; Calgary, 1,324; Lethbridge, 240; Medicine Hat, 166.

Diseases of the heart accounted for 29.5 of the total deaths; the number being 2,113, and the death rate 224.8 per 100,000 population. 1,065 deaths were due to cancer, 14.9 of the total deaths, the rate being 113.4. Deaths from all forms of tuberculosis dropped from 173 in 1950 to 146 in 1951, 68 of these deaths being Indians. Pulmonary tuberculosis caused 119 deaths, of which 52 were Indians, and other forms of tuberculosis, 27 deaths; 16 being Indians.

There was an increase in deaths from Pneumonia and Influenza, the numbers being 302 and 114 respectively, as compared with 275 and 26 for the previous year. Only two deaths from poliomyelitis were recorded. Violent and accidental deaths numbered 654, comprising Motor Vehicle accidents 179, other Transport accidents 47, Accidental poisoning 28, Accidental falls 89, accidents caused by Machinery 35, accidents caused by Fire and Explosion 30; accidents

caused by Hot Substances, Corrosive Liquid, Steam and Radiation 4; accidents caused by Firearms 13; Accidental Drowning 34. All other accidental causes 104; Suicides 86; and Homicides 5.

The death rate for Canada, the Provinces and certain other countries are as follows

DEATH RATES			
Canada	9.0	Australia	9.7
Newfoundland	8.3	New Zealand	9.6
Prince Edward Island	9.2	United States	9.7
Nova Scotia	9.0	Belgium	12.6
New Brunswick	9.4	Denmark	8.9
Quebec	8.6	Finland	10.0
Ontario	9.6	France	13.3
Manitoba	8.7	Italy	10.3
Saskatchewan	7.7	Netherlands	7.6
Alberta	7.6	Austria	12.7
British Columbia	10.0	Norway	8.3
England and Wales	12.5	Portugal	12.3
Scotland	12.9	Spain	11.6
Northern Ireland	12.8	Sweden	9.9
Eire	14.3	Switzerland	10.5

MATERNAL MORTALITY

Deaths from puerperal causes have decreased steadily for a number of years, 15 maternal deaths being registered in 1951, as compared with 19 the previous year. The rates per 1,000 live births being 0.6 and 0.7 respectively.

MATERNAL DEATH RATES PER 1,000 LIVE BIRTHS

Canada	1.1	Ontario	0.8
Newfoundland	2.1	Manitoba	1.1
Prince Edward Island	0.4	Saskatchewan	1.0
Nova Scotia	0.7	Alberta	0.6
New Brunswick	0.7	British Columbia	0.7
Quebec	1.5		

INFANT DEATHS

Deaths of children under one year of age numbered 889, being 58 more than in the preceding year. Of this number, 531 were males and 358 were females; 251 of these children were under one day old, 462 were under one week, and 557 were under the age of one month. The infantile death rate was 33 per 1,000 live births, the rate for the preceding year being 32.

INFANT MORTALITY RATES PER 1,000 LIVE BIRTHS

Canada	38	Australia	25
Newfoundland	54	New Zealand	23
Prince Edward Island	34	United States	29
Nova Scotia	35	Belgium	58
New Brunswick	52	Denmark	29
Quebec	48	Finland	35
Ontario	31	France	51
Manitoba	33	Italy	67
Saskatchewan	31	Netherlands	27
Alberta	33	Austria	62
British Columbia	30	Norway	28
England and Wales	30	Portugal	89
Scotland	37	Spain	62
Northern Ireland	41	Sweden	21
Eire	45	Switzerland	30

There were 402 stillbirths registered during the year, 30 more than the previous year, the rate being 14.9 per 1,000 live births.

DIVISIONS OF ALBERTA FOR CENSUS AND VITAL STATISTICS PURPOSES

As the Province of Alberta is not divided into Counties, and the political divisions are not permanently fixed, it has been found advisable to use as smaller areas, the Dominion Census Divisions.

The Province is divided into 17 census divisions. These divisions are further subdivided into organized municipal areas. These municipal areas, which were each originally within the boundaries of a single census division, have been reorganized by the Provincial authorities into larger units, and now, in many cases, part of the new municipality or improvement district is in one census division and part in another.

The following table shows the census divisions divided into municipalities, improvement districts, cities, towns and villages, with the 1951 and 1941 division population figures.

POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNI-
CIPALITIES FOR CENSUS YEARS, 1941 AND 1951

Division and Subdivision	Total		Division and Subdivision	Total	
	1951	1941		1951	1941
ALBERTA	939,501	796,169	Division No. 2—Continued:		
Rural	451,313	489,583	Villages::		
Urban	488,188	306,586	Coaldale	806	290
Division No. 1	35,879	29,595	Cowley	119	125
Rural	14,033	16,408	Frank	239	204
1. I.D.	250	370	Stirling	520	437
2. Burlington	2,186	3,084	Division No. 3	17,132	15,518
4. Warner	3,445	3,617	Rural	12,001	12,151
11. I.D.	2,251	3,312	21. I.D.	1,605	2,412
13. Bow Island	1,740	2,435	22. I.D.	702	637
14. Eureka	3,909	3,323	23. I.D.	1,459	1,359
25. Barons (pt.)	252	267	28. Newell (pt.)	6,310	5,475
Urban	21,846	13,187	34. Acadia (pt.)	19	9
Cities:			Army Experimental		
Medicine Hat	16,364	10,571	Range	394	309
Towns:			Berry Creek-Sullivan		
Bow Island	653	291	Lake Area (pt.)	598	752
Irvine	224	240	Bow West Area (pt.)	700	867
Taber	3,042	1,331	Vulcan No. 2 (pt.)	214	331
Villages:			Urban	5,131	3,367
Burdett	118	123	Towns:		
Foremost	375	.....	Bassano	624	582
Grassy Lake	167	.....	Brooks	1,648	888
Milk River	481	335	Redcliff	1,538	1,111
Warner	422	296	Villages:		
Division No. 2	71,480	58,563	Duchess	258	149
Rural	31,618	29,725	Empress	411	341
5. Sugar City	5,038	4,749	Enchant .....	.....	76
6. Cochrane	3,475	4,233	Jenner .....	.....	27
8. I.D.	39	2	Tilley	259	193
9. Pincher Creek	3,149	3,363	Vauxhall	393	.....
10. I.D.	4,828	4,149	Division No. 4	28,984	29,383
16. Bright	2,231	2,427	Rural	19,124	22,315
25. Barons (pt.)	8,843	6,693	25. Barons (pt.)	3,866	3,920
26. Argyle (pt.)	1,139	1,516	26. Arygle (pt.)	1,602	1,803
27. I.D. (pt.)	83	162	27. I.D. (pt.)	83	107
Waterton Lakes Nat. Prk.	238	269	31. Highwood	4,916	4,921
Indian Reserves	2,555	2,162	32. Turner Valley (pt.)..	4,088	6,175
Urban	39,862	28,838	33. I.D.	31	28
Cities:			Bow West Area (pt.)	524	766
Lethbridge	22,947	14,612	Vulcan No. 2 (pt.)	3,850	4,595
Towns:			Indian Reserves	164	.....
Blairmore	1,933	1,731	Urban	9,860	7,068
Cardston	2,487	1,864	Towns:		
Claresholm	1,608	1,265	High River	1,888	1,430
Coleman	1,961	1,870	Nanton	934	718
Granum	327	238	Okotoks	767	591
Macleod	1,860	1,912	Stavely	327	273
Magrath	1,320	1,207	Vulcan	1,040	732
Pincher Creek	1,456	994			
Raymond	2,279	2,089			

POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNICIPALITIES FOR CENSUS YEARS, 1941 AND 1951—Continued

Division and Subdivision	Total		Division and Subdivision	Total	
	1951	1941		1951	1941
Division No. 4—Continued:			Division No. 6—Continued:		
Villages:			Villages—Continued		
Arrowwood	222	251	Standard	237	212
Barons	369	233	Swalwell .....	.....	114
Black Diamond	1,154	890	Trochu	630	480
Blackie	224	223			
Carmangay	285	229	Division No. 7	32,334	33,285
Cayley	139	133	Rural	22,612	26,116
Champion	378	320	52. Provost	3,610	4,716
Lomond	153	129	53. Paintearth	3,073	4,160
Milo	141	129	61. Wainwright (pt.)	3,583	4,755
Nobleford	255	111	62. Flagstaff.....	6,129	7,804
Picture Butte	865	.....	73. Beaver (pt.)	1,235	1,518
Turner Valley	719	676	Berry Creek-Sullivan		
Division No. 5	16,129	18,926	Lake Area (pt.)	101	147
Rural	12,328	15,560	Sounding Creek-Neutral		
34. Acadia (pt.)	686	739	Hills Area (pt.)	2,173	3,012
42. I.D. (pt.)	2,642	2,353	Buffalo Nat. Park 6.....	2,708	4
47. Starland	2,472	3,289	Urban	9,722	7,169
Berry Creek-Sullivan			Towns:		
Lake Area (pt.)	3,252	4,658	Castor	798	625
Sounding Creek-Neutral			Coronation	738	581
Hills Area (pt.)	3,186	4,521	Hardisty	536	457
Urban	3,891	3,366	Wainwright	1,996	980
Towns:			Villages:		
Hanna	2,027	1,622	Alliance	281	233
Villages:			Cadogan .....	.....	99
Cereal	135	142	Chauvin	340	343
Chinook	116	142	Consort	396	265
Craigmyle	136	186	Czar	123	139
Delia	278	315	Edgerton	309	258
Morrin	226	216	Forestburg	443	231
Munson	78	139	Galahad	198	145
Oyen	433	326	Hughenden	218	164
Rumsey	110	90	Irma	369	273
Youngstown	352	188	Killam	465	347
Division No. 6	195,352	146,990	Lougheed	186	195
Rural	50,436	46,679	Monitor .....	.....	82
28. Newell (pt.)	671	668	Provost	676	518
32. Turner Valley (pt.) ..	67	84	Sedgewick	485	320
40. Bow Valley	2,941	3,462	Strome	276	233
41. I.D.	155	212	Veteran	206	190
42. I.D. (pt.)	4,292	4,011	Viking	683	491
43. Serviceberry	3,091	3,706	Division No. 8	73,997	67,630
44. Conrich	5,509	4,273	Rural	43,965	49,293
45. Springbank	5,014	3,241	54. Stettler	6,007	7,167
46. I.D.	6,364	3,598	55. Red Deer (pt.)	6,753	7,792
48. Kneehill	7,263	8,135	63. Camrose	10,895	12,236
49. Mountain View	8,933	9,800	64. Lacombe (pt.)	6,307	6,583
50. I.D.	1,067	1,085	66. Ponoka (pt.)	5,850	6,448
51. Banff Nat. Park	2,856	2,545	73. Beaver (pt.)	383	562
Indian Reserves	2,213	1,859	74. Wetaskiwin (pt.)	6,216	7,263
Urban	144,916	100,311	Indian Reserves	1,554	1,242
Cities:			Urban	30,032	18,337
Calgary	129,060	88,904	Cities:		
Drumheller	2,601	2,748	Red Deer	7,575	2,924
Towns:			Wetaskiwin	3,824	2,318
Didsbury	1,180	892	Towns:		
Gleichen	430	435	Camrose	4,131	2,598
Olds	1,617	1,337	Daysland	475	438
Strathmore	704	560	Innisfail	1,417	1,223
Three Hills	1,026	706	Lacombe	2,277	1,603
Villages:			Ponoka	2,574	1,306
Acme	275	285	Stettler	2,442	1,295
Airdrie	267	191	Villages:		
Beiseker	325	240	Alix	461	360
Bowness	2,922	.....	Bashaw	603	494
Carbon	374	409	Bawlf	236	227
Carstairs	468	371	Big Valley	307	291
Cluny	202	138	Bittern Lake	25	50
Cochrane	530	298	Blackfalds	154	113
Crossfield	443	409	Botha	98	111
Forest Lawn	1,079	899	Clive	241	224
Hussar	120	116	Delburne	395	308
Irricana	180	172	Donalda	318	206
Langdon .....	.....	95	Edberg	188	152
Rockyford	246	201	Elnora	211	195
Rosebud .....	.....	99	Erskine .....	.....	172
			Ferintosh	205	169

POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNICIPALITIES FOR CENSUS YEARS, 1941 AND 1951—Continued

Division and Subdivision	Total		Division and Subdivision	Total	
	1951	1941		1951	1941
Division No. 8—Continued:			Division No. 11—Continued:		
Villages Continued:			Rural—Continued:		
Gadsby	128	141	83. Strathcona	6,982	6,725
Gull Lake	32	21	84. Stony Plain	7,921	10,061
Halkirk	148	118	90. Sturgeon (pt.)	6,365	5,115
Ma-Me-O Beach	98	.....	91. Morinville (pt.)	3,307	3,542
Millet	402	325	93. Lac Ste. Anne (pt.)..	4,999	5,654
Mirror	635	570	Elk Island Nat. Park.....	55	50
New Norway	258	169	Indian Reserves	1,014	997
Ohaton .....	.....	53	Urban	180,495	99,793
Penhold	174	183	Cities:		
Division No. 9	31,627	32,232	Edmonton	159,631	93,817
Rural	27,306	29,045	Towns:		
55. Red Deer (pt.)	5,653	5,735	Beverly	2,159	981
56. Waterloo	1,237	1,402	Devon	842	.....
57. Raven	2,366	2,254	Fort Saskatchewan	1,076	903
58. I.D.	66	94	Jasper Place	9,139	.....
64. Lacombe (pt.)	2,482	2,670	Leduc	1,842	871
65. I.D.	4,145	4,307	Morinville	892	580
66. Ponoka (pt.)	3,163	3,576	St. Albert	1,129	697
68. I.D.	226	257	Stony Plain	878	566
69. I.D.	1,223	1,234	Tofield	692	551
76. I.D. (pt.)	3,398	3,877	Villages:		
79. I.D. (pt.)	1,166	2,017	Alberta Beach	79	59
80. Jasper Nat. Park	1,899	1,622	Calmar	944	.....
Indian Reserves	282	.....	Hay Lakes	231	154
Urban	4,321	3,187	Lakeview	15	.....
Towns:			Onoway	189	156
Rimbey	757	410	Sangudo	269	173
Rocky Mtn. House	1,147	800	Seba Beach	103	84
Sylvan Lake	985	805	Thorsby	385	.....
Villages::			Wabamun .....	.....	201
Bentley	439	279	Division No. 12	17,740	17,431
Bowden	277	234	Rural	14,907	15,497
Eckville	379	135	77. I.D.	1,325	1,821
North Red Deer .....	.....	524	78. I.D.	1,511	1,875
Sundre	337	.....	79. I.D. (pt.)	2,826	1,862
Division No. 10	50,016	58,807	93. Lac Ste. Anne (pt.)...	2,208	2,484
Rural	37,780	49,982	94. Pembina	2,688	3,462
61. Wainwright (pt.)	269	425	95. I.D.	2,561	2,560
71. Vermilion River (pt.)	9,817	11,869	96. I.D.	299	85
72. Minburn	5,909	7,052	108. I.D. (pt.)	114	106
73. Beaver (pt.)	3,032	3,683	109. I.D. (pt.)	1,343	1,209
81. Eagle	10,094	14,483	110. I.D. (pt.)	32	33
82. Lamont	8,659	12,470	111. I.D. (pt. ) .....	.....	.....
Urban	12,236	8,825	Urban	2,833	1,934
Towns:			Towns:		
Lloydminster (pt.)	1,706	572	Edson	1,956	1,499
Mundare	596	756	Villages:		
Vegreville	2,223	1,696	Entwistle .....	.....	218
Vermilion	1,982	1,408	Mayerthorpe	472	217
Villages:			Wildwood	405	.....
Andrew	625	326	Division No. 13	30,152	33,172
Bruderheim	387	237	Rural	26,775	30,805
Chipman	180	240	71. Vermilion River (pt.)	434	587
Derwent	233	171	85. I.D.	289	512
Hairy Hill	205	.....	86. St. Paul	8,941	10,122
Holden	504	361	87. Bonnyville	1,474	1,867
Innisfree	287	253	88. Glendon	1,547	1,965
Islay .....	.....	132	89. Smoky Lake (pt.)	3,282	4,837
Kitscoty	235	234	101. I.D.	5,601	6,259
Lamont	637	438	102. I.D. (pt.)	2,791	2,745
Lavoy	122	178	103. I.D. (pt.)	23	52
Mannville	528	396	Indian Reserves	2,393	1,859
Minburn	186	129	Urban	3,377	2,367
Myrnam	388	216	Towns:		
Ranfurly .....	.....	129	Bonnyville	1,139	603
Ryley	406	323	St. Paul	1,407	1,018
Two Hills	525	210	Villages:		
Willingdon	281	420	Bellis .....	.....	128
Division No. 11	226,199	149,193	Elk Point	453	307
Rural	45,704	49,400	Vilna	378	311
73. Beaver (pt.)	2,439	2,997	Division No. 14	46,791	47,899
74. Wetaskiwin (pt.)	56	39	Rural	39,254	44,526
75. Leduc	11,108	12,741	89. Smoky Lake (pt.)	6,775	9,884
76. I.D. (pt.)	1,458	1,479	90. Sturgeon (pt.)	2,430	3,166

POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNI-
CIPALITIES FOR CENSUS YEARS, 1941 AND 1951—Continued

Division and Subdivision	Total		Division and Subdivision	Total	
	1951	1941		1951	1941
Division No. 14—Continued:			Division No. 16—Continued:		
Rural—Continued:			Division No. 16	32,439	30,349
91. Morinville (pt.)	2,504	2,838	Rural	25,631	26,349
92. Westlock	9,797	10,469	111. I.D. (pt.)	11	18
93. Lac Ste. Anne (pt.)	2,629	3,006	132. I.D.	2,905	2,110
102. I.D. (pt.)	2,619	2,639	133. Spirit River	1,406	1,828
103. Athabasca	7,799	7,922	134. I.D.	2,568	2,372
107. I.D.	3,112	3,166	135. Peace	1,741	2,003
108. I.D. (pt.)	1,072	1,088	136. Fairview	2,031	2,326
122. I.D.	469	348	138. I.D. (pt.)	1,663	1,610
Indian Reserves	48	.....	139. I.D.	3,007	2,740
Urban	7,537	3,373	Grande Prairie No. 1	10,198	11,181
Towns:			Indian Reserves	101	161
Athabasca	1,068	578	Urban	6,808	4,000
Barrhead	1,243	399	Towns:		
Lac la Biche	905	517	Fairview	929	432
Redwater	1,306	.....	Grande Prairie	2,664	1,724
Westlock	1,111	590	Villages:		
Villages:			Beaverlodge	514	331
Clyde	219	160	Berwyn	288	206
Legal	523	462	Clairmont .....	.....	102
Radway	184	.....	Grimshaw	564	169
Smoky Lake	491	430	Hythe	342	247
Thorhild	248	.....	Rycroft	372	.....
Waskatenau	239	237	Sexsmith	331	325
Division No. 15	21,663	17,484	Spirit River	553	276
Rural	16,963	16,020	Wembley	251	188
108. I.D. (pt.)	771	917	Division No. 17	11,587	9,712
109. I.D. (pt.)	170	160	Rural	10,966	9,712
110. I.D. (pt.)	41	75	102. I.D. (pt.) .....	.....	3
111. I.D. (pt.)	313	267	121. I.D. (pt.)	310	224
123. I.D. ....	.....	15	128. I.D.	593	365
124. I.D.	2,934	2,545	129. I.D.	502	335
125. I.D.	3,150	3,044	131. I.D. (pt.)	179	51
126. I.D.	2,138	1,687	137. I.D.	124	45
130. I.D.	4,195	4,327	138. I.D. (pt.)	2,547	1,970
131. I.D. (pt.)	2,185	1,829	143. I.D.	1,158	2,316
Indian Reserves	1,066	1,154	144. I.D.	115	37
Urban	4,700	1,464	145. I.D.	158	90
Towns:			146. I.D.	754	279
High Prairie	1,141	.....	147. I.D.	1,589	1,378
McLennan	1,074	.....	148. I.D. ....	.....	12
Peace River	1,672	873	149. I.D.	39	67
Villages:			Wood Buffalo Nat. Park ..	36	42
Falher	575	244	Indian Reserves	2,862	2,507
Grouard .....	.....	347	Urban	621	.....
Kinuso	238	.....	Towns:		
			McMurray	621	.....

TABLE 1.—GENERAL SUMMARY OF BIRTHS, DEATHS AND MARRIAGES IN ALBERTA BY DIVISIONS, INCLUDING CITIES, TOWNS AND VILLAGES
OF 1,000 POPULATION AND OVER, BY PLACE OF RESIDENCE, 1951

Divisions, Cities, Towns and Villages	Births (Exclusive of Still- births)			All Ages			Under 1 year			1-4 years			Neo-natal deaths (under 28 days)		Stillbirths	Marriages
	Total	M.	F.	Total	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
TOTAL FOR THE PROVINCE	27003	13760	13243	7167	4429	2738	531	358	90	76	345	212			402	9305
Division No. 1	964	500	464	253	171	82	16	9	2	3	11	5			10	347
Division No. 2	2081	1059	1022	532	323	209	42	29	5	6	30	17			36	796
Division No. 3	490	249	241	111	63	48	10	4	1	2	10	3			6	86
Division No. 4	874	434	440	250	165	85	20	14	5	3	15	9			17	146
Division No. 5	401	222	179	133	90	43	7	11	...	...	5	7			8	70
Division No. 6	5405	2763	2,642	1617	989	628	99	56	15	8	67	35			86	2359
Division No. 7	794	396	398	251	164	87	7	12	...	...	4	8			14	214
Division No. 8	2025	982	1043	654	393	261	42	35	7	10	27	23			38	685
Division No. 9	723	371	352	229	138	91	18	15	4	3	11	12			8	122
Division No. 10	1190	599	591	370	221	149	29	13	4	6	20	6			19	388
Division No. 11	7092	3617	3475	1590	956	634	109	57	14	12	78	31			99	3023
Division No. 12	477	248	229	133	92	41	6	9	3	...	4	8			7	91
Division No. 13	906	466	440	230	142	88	30	27	11	7	16	10			11	186
Division No. 14	1326	678	648	310	198	112	26	23	4	4	16	16			11	309
Division No. 15	888	458	430	184	116	68	31	18	8	6	9	10			15	177
Division No. 16	997	506	491	217	144	73	17	13	4	1	14	9			15	244
Division No. 17	370	212	158	103	64	39	22	13	3	5	8	3			2	62
CITIES	10352	5321	5031	2794	1703	1091	168	89	22	14	125	57			155	5580
Calgary	3649	1907	1742	1146	702	444	61	31	10	6	45	23			58	1938
Drumheller	140	71	69	37	26	11	3	1	1	...	3	1			1	78
Edmonton	5089	2595	2494	1152	695	457	75	42	8	6	56	22			73	2622
Lethbridge	701	347	354	184	111	73	15	7	...	...	13	6			10	392
Medicine Hat	399	215	184	140	87	53	7	3	...	2	3	1			6	252
Red Deer	270	132	138	78	46	32	5	2	1	...	3	2			7	167
Wetaskiwin	104	54	50	57	36	21	2	3	2	...	2	2			...	91
TOWNS	1843	934	909	660	371	289	52	40	3	4	40	30			32	1091
Beverly	52	26	26	11	6	5	1	1	...	...	1	1			1	5
Blairmore	56	33	23	17	11	6	1	...	1	1	1	...			...	26
Brooks	68	39	29	24	14	10	4	1	...	...	4	1			...	33
Camrose	122	63	59	56	35	21	2	2	1	...	2	2			...	94
Cardston	77	51	26	18	12	6	5	...	...	...	3	...			2	110
Claresholm	35	17	18	17	12	5	2	...	...	1	2	...			...	36
Coleman	71	39	32	32	21	11	1	1	1	...	1	...			3	31
Edson	79	36	43	17	11	6	...	3	...	...	...	3			3	37
Grande Prairie	125	61	64	20	13	7	4	2	...	...	4	2			1	96
Hanna	60	33	27	33	20	13	...	3	...	...	...	2			...	32
High River	51	25	26	41	21	20	1	2	...	...	1	...			...	33
Innisfail	47	29	18	21	9	12	1	2	...	...	1	2			...	25
Lacombe	68	35	33	41	21	20	3	4	...	...	2	2			1	49

Macleod	58	28	30	20	11	9	1	1	1	...	...	...	1	31
Magrath	37	13	24	6	2	4	...	...	...	...	...	...	...	27
Olds	46	29	17	21	10	11	...	...	...	...	...	...	...	34
Pincher Creek	42	19	23	33	15	18	...	...	...	...	...	...	...	26
Ponoka	92	42	50	31	21	10	...	...	...	...	...	...	...	37
Raymond	57	24	33	21	12	9	...	...	...	...	...	...	...	24
Redcliffe	41	25	16	17	10	7	...	...	...	...	...	...	...	7
Rocky Mountain House	50	26	24	20	11	9	...	...	...	...	...	...	...	17
St. Paul	63	31	32	17	10	7	...	...	...	...	...	...	...	35
Stettler	100	39	61	31	17	14	...	...	...	...	...	...	...	70
Taber	135	65	70	19	12	7	...	...	...	...	...	...	...	44
Vegreville	66	26	40	28	13	15	...	...	...	...	...	...	...	53
Vermilion	73	44	29	23	11	12	...	...	...	...	...	...	...	44
Wainwright	72	36	36	25	10	15	...	...	...	...	...	...	...	35
VILLAGES	74	45	29	21	16	5	...	...	...	...	...	...	...	22
Black Diamond	36	20	16	10	6	4	...	...	...	...	...	...	...	8
Turner Valley	38	25	13	11	10	1	...	...	...	...	...	...	...	14

TABLE 2.—GENERAL SUMMARY OF BIRTHS, DEATHS AND MARRIAGES IN ALBERTA BY DIVISIONS INCLUDING CITIES, TOWNS AND VILLAGES OF 1,000 POPULATION AND OVER, BY PLACE OF OCCURRENCE, 1951

PROVINCE AND DIVISIONS	Births (Exclusive of Still- births)		Deaths						Neo-natal deaths (under 28 days)		Stillbirths		Marriages			
			All Ages		Under 1 year									1-4 years		
	Total	M.	F.	Total	M.	F.	M.	F.	M.	F.						
TOTAL FOR THE PROVINCE			26940	13728	13212	7162	4422	2740	528	357	86	77	343	211	401	9305
Division No. 1	983	517	466	231	150	81	17	9	2	3	11	5	36	21	11	347
Division No. 2	2436	1226	1210	547	327	220	47	33	6	5	36	21	36	21	36	796
Division No. 3	373	185	188	69	42	27	6	1	...	2	5	1	5	1	3	86
Division No. 4	457	242	215	171	111	60	11	6	5	1	7	2	7	2	14	146
Division No. 5	216	123	93	97	67	30	4	5	...	...	3	3	3	3	5	70
Division No. 6	5854	2975	2879	1720	1058	662	109	69	11	8	76	45	76	45	95	2359
Division No. 7	820	412	408	212	140	72	7	11	...	...	5	8	5	8	15	214
Division No. 8	2206	1094	1112	757	451	306	45	31	6	9	32	21	32	21	36	685
Division No. 9	499	256	243	174	106	68	12	13	2	1	6	10	6	10	9	122
Division No. 10	929	476	453	317	189	128	24	13	4	6	13	5	16	5	20	388
Division No. 11	7697	3918	3779	1879	1155	724	123	69	22	20	83	40	83	40	107	3023
Division No. 12	348	180	168	99	65	34	5	10	4	...	3	8	3	8	4	91
Division No. 13	851	429	422	189	118	71	29	24	9	7	18	8	18	8	10	186
Division No. 14	1122	577	545	246	155	91	23	22	3	3	13	15	13	15	6	309
Division No. 15	814	418	396	170	105	65	31	16	6	6	10	8	10	8	14	177
Division No. 16	1028	523	505	197	133	64	15	11	3	1	12	8	12	8	14	244
Division No. 17	307	177	130	87	50	37	20	14	3	5	7	3	7	3	2	62

TABLE 3.—BIRTHS (EXCLUSIVE OF STILLBIRTHS) BY MONTHS, CLASSIFIED AS RURAL AND URBAN, BY PLACE OF RESIDENCE, IN THE PROVINCE OF ALBERTA, 1951

	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
ALBERTA	27003	2025	1918	2358	2325	2451	2435	2497	2282	2374	2181	2101	2056
Rural	14734	1145	1039	1276	1241	1345	1308	1396	1280	1268	1203	1120	1113
Urban	12269	880	879	1082	1084	1106	1127	1101	1002	1106	978	981	943
DIVISION No. 1	964	72	67	92	90	88	73	85	95	81	69	70	82
Rural	430	33	35	45	37	43	30	41	38	33	30	30	35
Urban	534	39	32	47	53	45	43	44	57	48	39	40	47
City of Medicine Hat	399	31	25	40	41	37	32	33	38	32	23	32	35
Town of Taber	135	8	7	7	12	8	11	11	19	16	16	8	12
DIVISION No. 2	2081	140	144	174	168	210	199	194	169	173	180	166	164
Rural	947	65	69	74	75	85	93	80	84	69	89	78	86
Urban	1134	75	75	100	93	125	106	114	85	104	91	88	78
City of Lethbridge	701	51	53	59	56	72	67	74	49	53	60	59	48
Town of Blairmore	56	3	3	2	4	10	8	2	3	5	4	7	5
Cardston	77	2	4	8	10	11	1	7	4	12	7	7	4
Clareholm	35	3	3	1	6	3	2	5	1	3	2	5	1
Coleman	71	2	1	12	3	7	9	3	9	10	9	4	2
Macleod	58	4	2	6	4	9	10	8	2	3	3	1	6
Magrath	37	3	2	3	3	5	2	1	7	5	4	...	2
Pincher Creek	42	3	4	4	6	1	4	6	1	8	1	2	2
Raymond	57	4	3	5	1	7	3	8	9	5	1	3	8
DIVISION No. 3	490	39	36	33	48	34	40	51	48	50	39	36	36
Rural	381	32	29	27	36	20	33	37	40	39	31	27	30
Urban	109	7	7	6	12	14	7	14	8	11	8	9	6
Town of Brooks	68	5	4	3	7	10	3	7	6	9	6	5	3
Redcliff	41	2	3	3	5	4	4	7	2	2	2	4	3
DIVISION No. 4	874	72	66	80	73	69	62	68	63	87	88	73	73
Rural	749	58	54	69	68	62	51	58	53	71	79	65	61
Urban	125	14	12	11	5	7	11	10	10	16	9	8	12
Town of High River	51	8	2	5	1	5	3	5	6	6	5	3	2
Village of Black Diamond	36	3	5	2	1	.....	5	2	2	8	3	1	4
Turner Valley	38	3	5	4	3	2	3	3	2	2	1	4	6

DIVISION No. 5	401	21	25	34	33	31	28	49	43	40	44	20	33
	Rural	19	21	31	28	24	23	42	38	31	38	18	28
	Urban	2	4	3	5	7	5	7	5	9	6	2	5
	Town of Hanna	2	4	3	5	7	5	7	5	9	6	2	5
DIVISION No. 6	5405	413	390	454	494	444	517	470	449	534	397	426	417
	Rural	126	109	120	122	127	142	148	159	149	113	143	112
	Urban	287	281	334	372	317	375	322	290	385	284	283	305
	City of Calgary	273	266	318	356	306	357	306	282	371	264	260	290
DIVISION No. 7	140	10	13	9	12	9	16	13	7	9	16	15	11
	Drumheller	4	2	7	4	2	2	3	1	5	4	8	4
	Town of Olds												
DIVISION No. 8	2025	163	129	180	156	211	163	213	180	190	151	157	132
	Rural	108	73	102	93	134	101	135	118	116	80	84	78
	Urban	55	56	78	63	77	62	78	62	74	71	73	54
	City of Red Deer	20	18	29	20	25	20	22	17	22	30	27	20
DIVISION No. 9	104	5	6	12	2	11	11	13	5	13	8	12	6
	Wetaskiwin	9	11	8	13	15	9	11	13	8	9	9	7
	Town of Camrose												
	Innisfail	5	2	1	3	8	3	4	5	5	3	5	3
DIVISION No. 10	47	4	3	9	8	4	4	7	6	10	6	5	2
	Lacombe	4	5	6	6	6	8	13	9	11	5	11	8
	Ponoka	4	5	13	11	8	7	8	7	5	10	4	8
	Stettler	8	11	13	11	8	7	8	7	5	10	4	8
DIVISION No. 11	723	61	52	80	48	64	74	69	57	59	51	47	61
	Rural	55	48	75	46	59	70	65	48	57	46	45	59
	Urban	6	4	5	2	5	4	4	9	2	5	2	2
	Town of Rocky Mountain House	6	4	5	2	5	4	4	9	2	5	2	2
DIVISION No. 12	1190	89	91	84	103	104	106	122	101	106	101	90	93
	Rural	76	76	75	95	92	93	108	92	93	92	76	83
	Urban	13	15	9	8	12	13	14	9	13	9	14	10
	Town of Vegreville	5	9	5	5	5	7	4	5	4	8	6	3
DIVISION No. 13	66	8	6	4	3	7	6	10	4	9	1	8	7
	Vermilion												
DIVISION No. 14	7092	518	508	636	575	662	674	660	613	576	585	567	518
	Rural	154	138	166	133	199	197	204	175	166	160	133	126
	Urban	364	370	470	442	463	477	456	438	410	425	434	392
	City of Edmonton	358	365	464	437	457	476	453	431	408	424	429	387
DIVISION No. 15	52	6	5	6	5	6	1	3	7	2	1	5	5
	Beverly												
DIVISION No. 16	477	22	37	37	41	49	50	39	48	44	37	43	30
	Rural	18	31	36	36	39	46	31	40	34	28	34	25
	Urban	4	6	1	5	10	4	8	8	10	9	9	5
	Town of Edson	4	6	1	5	10	4	8	8	10	9	9	5

TABLE 3.—BIRTHS (EXCLUSIVE OF STILLBIRTHS) BY MONTHS, CLASSIFIED AS RURAL AND URBAN, BY PLACE OF RESIDENCE, IN THE PROVINCE OF ALBERTA, 1951—Continued

	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
DIVISION No. 13	906	73	63	85	89	91	84	89	64	62	59	73	74
Rural	843	67	57	79	84	85	80	80	61	56	55	67	72
Urban	63	6	6	6	5	6	4	9	3	6	4	6	2
Town of St. Paul	63	6	6	6	5	6	4	9	3	6	4	6	2
DIVISION No. 14	1326	108	96	126	135	117	114	121	96	114	111	92	96
Rural	1326	108	96	126	135	117	114	121	96	114	111	92	96
DIVISION No. 15	888	63	59	66	92	80	77	79	74	80	80	73	65
Rural	888	63	59	66	92	80	77	79	74	80	80	73	65
DIVISION No. 16	997	86	64	85	78	93	79	93	81	78	88	85	87
Rural	872	79	56	78	64	85	71	78	73	69	76	74	69
Urban	125	7	8	7	14	8	8	15	8	9	12	11	18
Town of Grande Prairie	125	7	8	7	14	8	8	15	8	9	12	11	18
DIVISION No. 17	370	30	39	42	29	30	29	25	25	31	35	24	31
Rural	370	30	39	42	29	30	29	25	25	31	35	24	31

TABLE 4.—LEGITIMATE AND ILLEGITIMATE BIRTHS (EXCLUSIVE OF STILL-BIRTHS), IN CITIES OF 5,000 POPULATION AND OVER IN ALBERTA, BY PLACE OF RESIDENCE OF MOTHER, 1951

Province, Cities and Towns	Total Births			Legitimate			Illegitimate		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
TOTAL FOR THE PROVINCE	27003	13760	13243	25731	13136	12595	1272	624	648
Cities:									
Calgary	3649	1907	1742	3443	1801	1642	206	106	100
Edmonton	5089	2595	2494	4841	2473	2368	248	122	126
Lethbridge	701	347	354	676	330	346	25	17	8
Medicine Hat	399	215	184	388	212	176	11	3	8

TABLE 5.—MULTIPLE BIRTHS CLASSIFIED TO SHOW THE NUMBER OF CHILDREN BORN ALIVE AND STILLBORN, BY SEX IN ALBERTA, BY PLACE OF RESIDENCE OF MOTHER, 1951

Classification of Births		Number
TWIN BIRTHS		350
Two males (both living)		118
One male and one female (both living)		109
Two females (both living)		108
One male living and one male stillborn		4
One male living and one female stillborn		1
One male still born and one female living		3
One female living and one female stillborn		3
Two males (both stillborn)		3
One male and one female living and one male stillborn.....		1
TRIPLET BIRTHS		4
Three males (all living)		1
Two males and one female (all living)		2
One male and one female (both stillborn).....		1
Total multiple births	Number	354
	Male	369
	Female	343
Total single live births	Number	26311
	Male	13406
	Female	12905
Total single stillbirths	Number	382
	Male	205
	Female	177
Total confinements		27047

TABLE 6.—BIRTHS (EXCLUSIVE OF STILLBIRTHS), CLASSIFIED ACCORDING TO BIRTHPLACES OF PARENTS, BY PLACE OF RESIDENCE OF MOTHER, 1951

VITAL STATISTICS BRANCH

[illegible]

[illegible]

Swedish	620	145	76	78	15	6	2	...	4	13	4	30	61	...	4	2	4	1	19	50	8	...	7	66	24	...	1
Ukrainian	2138	129	73	61	7	4	3	...	18	6	...	44	83	...	13	1	3	2	15	25	123	23	21	13	1465	...	...
Yugoslavian	57	5	1	4	...	...	...	...	1	...	...	1	4	...	3	...	1	...	1	1	1	1	2	...	5	...	...
Other	53	9	7	4	1	...	...	...	...	...	1	...	8	...	...	...	...	...	1	2	1	...	1	1	5	...	...
Asiatic	167	9	3	9	...	...	...	...	...	...	...	2	3	...	...	...	...	...	...	1	...	...	...	3	...	...	...
Chinese	57	2	2	3	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	1	...	...	...	...	1	...	...
Hindu (East Indian)	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Japanese	84	1	1	2	...	...	...	...	...	...	...	1	2	...	...	...	...	...	...	...	...	...	...	...	2	...	...
Syrian	25	6	...	3	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Indian	898	9	3	2	...	...	...	...	...	...	...	15	2	...	...	...	...	...	3	1	...	1	...	...	1	...	...
Jewish	119	9	3	1	...	...	...	...	...	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Negro	3	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Other races	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Unspecified	7	2	1	1	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Children born to un-married mothers:																											
Total	25731	6068	2806	3187	315	138	92	1	199	315	61	1909	2948	13	177	53	154	32	935	859	783	112	407	555	2305	55	40
Male	13136	3074	1428	1654	157	73	41	1	95	153	31	994	1495	7	87	29	72	21	482	448	398	53	217	296	1160	26	28
Female	12595	2994	1378	1533	158	65	51	...	104	162	30	915	1453	6	90	24	82	11	453	411	385	59	190	259	1145	29	12
Children born to un-married mothers:																											
Total	1272	198	92	134	19	2	4	...	12	12	3	68	123	...	11	1	1	...	23	32	34	4	15	16	94	3	2
Male	624	94	52	64	6	2	2	...	4	6	1	31	61	...	7	...	1	...	9	17	15	2	4	9	47	2	1
Female	648	104	40	70	13	...	2	...	8	6	2	37	62	...	4	1	...	...	14	15	19	2	11	7	47	1	1
Children born to all mothers																											
Total	27003	6266	2898	3321	334	140	96	1	211	327	64	1977	3071	13	188	54	155	32	958	891	817	116	422	571	2399	58	42
Male	13760	3168	1480	1718	163	75	43	1	99	159	32	1025	1556	7	94	29	73	21	491	465	413	55	221	305	1207	28	29
Female	13243	3098	1418	1603	171	65	53	...	112	168	32	952	1515	6	94	25	82	11	467	426	404	61	201	266	1192	30	13

TABLE 9.—TOTAL LIVE BIRTHS AND LIVE BIRTHS IN INSTITUTIONS BY PLACE OF OCCURRENCE AND PLACE OF RESIDENCE OF MOTHER, IN ALBERTA, 1951

Province	All Live Births						Births in Institutions					
	Place of occurrence	Mother's residence elsewhere		Births to resident mothers occurring elsewhere		Place of residence	Place of occurrence	Mother's residence elsewhere		Births to resident mothers occurring elsewhere		Place of residence
		In Canada	In United States	In Canada	In United States			In Canada	In United States	In Canada	In United States	
Total for the Province	26940	231	7	293	8	27003	25205	223	7	286	8	25269

TABLE 10.—TOTAL LIVE BIRTHS AND LIVE BIRTHS IN INSTITUTIONS IN CITIES OF 5,000 POPULATION AND OVER. BY PLACE OF OCCURRENCE AND PLACE OF RESIDENCE OF MOTHER, IN ALBERTA, 1951

Cities	All Live Births				Births in Institutions				Place of residence			
	Place of occurrence	Mother's residence elsewhere		Births to resident mothers occurring elsewhere		Place of residence	Mother's residence elsewhere			Births to resident mothers occurring elsewhere		
		In Canada	In United States	In Canada	In United States		In Canada	In United States				
Calgary	4725	1135	1	60	...	3649	4722	1134	1	58	...	3645
Edmonton	7513	2498	...	73	1	5089	7511	2497	...	71	1	5086
Lethbridge	1275	589	1	16	...	701	1275	589	1	16	...	701
Medicine Hat	669	281	1	12	...	399	666	279	1	11	...	397

TABLE 11—ORDER OF BIRTH OF LEGITIMATE CHILDREN BORN IN 1950 (INCLUDING STILLBORN CHILDREN),
IN ALBERTA, BY AGE AND RESIDENCE OF MOTHER

Order of birth of child	Total	Age of Mother										45 years and over	Age not stated		
		Under 15 yrs.	15 years	16 years	17 years	18 years	19 years	20 years	20-24 years	25-29 years	30-34 years			35-39 years	40-44 years
TOTAL	26106	...	7	47	208	486	892	1640	7796	7915	5148	2768	770	63	6
1st child	7251	...	7	42	187	408	632	1276	3505	1638	576	212	41	2	1
2nd "	7461	...	...	5	18	71	226	320	2753	2663	1242	407	72	3	1
3rd "	4903	...	...	...	3	6	32	41	1096	1866	1282	533	82	2	1
4th "	2705	...	...	...	...	1	1	2	337	941	855	466	102	2	...
5th "	1555	...	...	...	...	...	1	1	90	494	515	359	89	6	1
6th "	788	...	...	...	...	...	...	...	10	182	279	231	81	5	...
7th "	517	...	...	...	...	...	...	...	5	86	184	161	73	8	...
8th "	317	...	...	...	...	...	...	...	...	32	103	124	51	7	...
9th "	192	...	...	...	...	...	...	...	...	9	53	90	35	5	...
10th "	147	...	...	...	...	...	...	...	...	2	38	71	36	...	...
11th "	99	...	...	...	...	...	...	...	...	...	13	55	27	4	...
12th "	76	...	...	...	...	...	...	...	...	...	5	32	31	8	...
13th "	42	...	...	...	...	...	...	...	...	...	3	16	21	2	...
14th "	24	...	...	...	...	...	...	...	...	1	...	5	17	1	...
15th "	12	...	...	...	...	...	...	...	...	...	...	3	5	4	...
16th "	10	...	...	...	...	...	...	...	...	...	...	2	4	4	...
17th "	4	...	...	...	...	...	...	...	...	...	...	1	3	...	...
18th " .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19th " .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20th and over .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Not stated	3	...	...	...	...	...	...	...	...	1	...	...	...	...	2

TABLE 12.—DEATHS OF CHILDREN UNDER ONE YEAR (EXCLUSIVE OF STILLBIRTHS) FROM CERTAIN SPECIFIED CAUSES, BY SEX AND CALENDAR MONTH OF DEATH IN ALBERTA, BY PLACE OF RESIDENCE, 1951

CAUSES OF DEATH		Total under 1 year		MONTH OF DEATH																							
				January		February		March		April		May		June		July		August		September		October		November		December	
Total	Male	Female	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
ALL CAUSES	889	531	358	44	40	49	30	38	39	38	32	37	29	43	28	43	27	51	36	34	20	40	32	54	25	60	20
001-019 Tuberculosis	7	5	2	1									1	1				1				1			1		
020-029 Syphilis																											
045-048 Dysentery	4	1	3						1		1													1			
050 Scarlet fever																											
052 Erysipelas																											
055 Diphtheria																											
056 Whooping cough	3	2	1										1														
057 Meningococcal infections	1	1																									
085 Measles	5	3	2				1		1								1								1		
Diseases of the thymus gland	4	3	1			1	1															2					
273 Meningitis (non-meningococcal)	8	5	3			1	1		2	1									1								
340 Otitis media	1		1		1																					1	
391, 392 Influenza	21	12	9		1	3	1	3	3		1	2					1	2		1		1		1	1	6	
480-483 Pneumonia (4 weeks and over)	97	50	47	12	11	7	2	6	5	2	5	1	3							4	1	4	2	3	6		
490-493 Bronchitis	5	2	3		1				1																		
500-502 Gastritis and duodenitis																											
543 Gastro-enteritis and colitis	41	26	15	1	2	1	2	3		1	1		2	1	1	2	1	7	4	4		2	2		2		
571 Chronic enteritis and ulcerative colitis																											
250-759 Congenital malformations	136	84	52	6	4	10	4	1	5	4	4	6	5	9	4	5	5	8	2	6	4	4	13	5	11	6	
752 Congenital hydrocephalus	10	6	4	1		1	1						1	1	2	1		1	1				1				
754 Congenital malformations of circulatory system	60	33	27	3	3	3	2		3	2	2	1	1	1	4	3	4	3	1	2	2	4	2	5	3	4	
750, 751, 753, 755- Others under this title																											
759 Injury at birth	66	45	21	2	1	6	1	1	2	2	2	5	3	3	3		2	4		4	2	1	7	5	8	2	
760, 761 Postnatal asphyxia and atelectasis	62	33	29	2	1	3	1	1	5	1	2	1	1	4	3	2	1	2		4	2	2	6	5	3	1	
762 Pneumonia of newborn (under 4 weeks)	109	68	41	2	2	6	4	4	5	4	5	6	6	7	6	2	7	9	5	2	2	2	8	1	9	2	
763 Diarrhoea of newborn (under 4 weeks)	19	11	8	1	1	1	2	1				1							1	1	1	3	1	2			
764 Antenatal toxæmia	7	6	1	1																1		1	1		1		
769 Erythroblastosis	17	9	8									1	1		2		2	1		1		1			1		
770 Nutritional maladjustment	29	21	8	1	3	2	1	2	1		2	2			3		3	2	1	1					1		
772	9	6	3								1							1					2	1			

773	Ill-defined diseases peculiar to early infancy	14	8	6	...	3	2	2	...	2	...	7	14	...	2	...	2	...	1	...	1	...	1	...
774-776	Immaturity	186	117	69	12	7	8	1	...	11	6	8	...	5	15	...	11	...	6	3	...	10	5	12
795	Ill-defined and unknown causes	13	11	2	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	3	...	3
800-936	Accidental causes	37	17	20	...	2	...	...	...	3	3	2	...	1	2	...	1	...	...	3	...	2	...	4
	Other specified causes	54	30	24	5	1	3	3	...	1	5	1	3	...	5	1	3	...	3	...	1	2	...	2

TABLE 13—INFANTILE DEATH AND STILLBIRTH RATES, ALSO NUMBER OF LIVE BIRTHS WITH OR WITHOUT A PHYSICIAN, BY DIVISIONS AND CITIES IN ALBERTA, BY PLACE OF RESIDENCE, 1951

Divisions and Cities	Death rate of children under one year of age to each 1,000 live births			Live Births with or without a physician in attendance			Rates of stillborn children to 1,000 live births	
	Rate per 1000 live births	Number of deaths	Total Live births	With physician	Without physician	Not stated	Number of stillbirths	Rate per 1000 live births
Division No. 1—Medicine Hat (City of Medicine Hat excepted)	27	15	565	541	24	...	4	7
Division No. 2—Macleod (City of Lethbridge excepted)	36	49	1380	1255	122	3	26	19
Division No. 3—Bow	29	14	490	484	6	...	6	12
Division No. 4—Nanton	39	34	874	861	9	4	17	19
Division No. 5—Acadia	45	18	401	395	6	...	8	20
Division No. 6—Calgary (Cities of Calgary and Drumheller excepted)	37	59	1616	1549	67	...	27	17
Division No. 7—Battle River	24	19	794	783	11	...	14	18
Division No. 8—Red Deer (Cities of Red Deer and Wetaskiwin excepted)	39	65	1651	1599	49	3	31	19
Division No. 9—Rocky Mountain House	46	33	723	694	28	1	8	11
Division No. 10—Victoria	35	42	1190	1181	9	...	19	16
Division No. 11—Edmonton (City of Edmonton excepted).....	24	49	2003	1945	57	1	26	13
Division No. 12—Edson	31	15	477	459	17	1	7	15
Division No. 13—Beaver River	63	57	906	827	76	3	11	12
Division No. 14—Sturgeon	37	49	1326	1260	63	3	11	8
Division No. 15—Clearwater	55	49	888	792	87	9	15	17
Division No. 16—Peace River	30	30	997	966	30	1	15	15
Division No. 17—Athabasca	95	35	370	184	177	9	2	5
City of Edmonton	23	117	5089	5085	4	...	73	14
City of Calgary	25	92	3649	3645	4	...	58	16
City of Lethbridge	31	22	701	701	...	...	10	14
City of Medicine Hat	25	10	399	396	3	...	6	15
City of Red Deer	26	7	270	268	2	...	7	26
City of Drumheller	29	4	140	140	...	...	1	7
City of Wetaskiwin	48	5	104	103	1	...	...	...
Divisions	38	632	16651	15775	838	38	247	15
Cities	25	257	10352	10338	14	...	155	15
Whole Province	33	889	27003	26113	852	38	402	15

TABLE 14.—DEATHS OF CHILDREN UNDER ONE YEAR (EXCLUSIVE OF STILLBIRTHS) FROM CERTAIN SPECIFIED CAUSES, BY SEX AND AGE AT DEATH IN ALBERTA, BY PLACE OF RESIDENCE, 1951

CAUSES OF DEATH	Total under 1 year			AGE AT DEATH																															
	Total	Male	Female	Under 1 day		1-6 days		7-13 days		14-20 days		21-27 days		1 month and under 2 mos.		2 months and under 3 mos.		3 months and under 4 mos.		4 months and under 5 mos.		5 months and under 6 mos.		6 months and under 7 mos.		7 months and under 8 mos.		8 months and under 9 mos.		9 months and under 10 mos.		10 months and under 11 mos.		11 months and under 12 mos.	
				M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ALL CAUSES	889	531	358	152	99	138	73	29	22	18	11	8	7	43	31	34	20	17	23	23	9	15	15	14	10	10	9	11	9	7	8	4	7	5	
001-019 Tuberculosis	7	5	2	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	2	...	...	...	...	...	...	1	...	...	...
020-029 Syphilis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
045-048 Dysentery	4	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
050 Scarlet fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
052 Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
055 Diphtheria	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
056 Whooping cough	3	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
057 Meningococcal infections	1	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
085 Measles	5	3	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
273 Diseases of the thymus gland	4	3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
340 Meningitis (non-meningococcal)	8	5	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
391, 392 Otitis media	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
480-483 Influenza	21	12	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
490-493 Pneumonia (4 weeks and over)	97	50	47	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
500-502 Bronchitis	5	2	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
543 Gastritis and duodenitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
571 Gastro-enteritis and colitis	41	26	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
572 Chronic enteritis and ulcerative colitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
750-759 Congenital malformations	136	84	52	11	6	26	14	10	10	6	2	5	1	10	7	3	4	2	3	3	4	1	2	2	1	...	...	...	...	...	...	...	...	...
752 Congenital hydrocephalus	10	6	4	1	1	...	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
754 Congenital malformations of circulatory system	60	33	27	2	3	11	9	5	4	3	1	2	...	4	3	...	3	1	2	3	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
750,751, 753,755-759 Others under this title	66	45	21	8	2	15	4	3	6	3	1	3	1	6	3	3	1	1	...	...	...	2	1	1	...	...	...	...	...	...	...	...	...	...	...
759 Injury at birth	62	33	29	19	19	12	9	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
760, 761 Postnatal asphyxia and atelectasis	109	68	41	33	20	33	15	1	3	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
762 Pneumonia of newborn (under 4 weeks)	19	11	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
763 Diarrhoea of newborn (under 4 weeks)	7	6	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
764 Antenatal toxæmia	17	9	8	5	4	2	4	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
769 Erythroblastosis	29	21	8	6	2	11	6	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

[illegible]

TABLE 17.—CAUSES OF DEATH (INTERMEDIATE LIST) BY SEX AND AGE IN ALBERTA, BY PLACE OF RESIDENCE, 1951—Continued

CAUSES OF DEATH	Total	AGES																	100 years and over	Not stated							
		Under 1 year	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years			65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years
A 41	Ankylostomiasis	Male																									
A 42	Other diseases due to helminths	Female																									
A 43	All other diseases classified as infective and parasitic	Male																									
A 44	Malignant neoplasm of buccal cavity and pharynx	Female																									
A 45	Malignant neoplasm of oesophagus	Male																									
A 46	Malignant neoplasm of stomach	Female																									
A 47	Malignant neoplasm of intestine, except rectum	Female																									
A 48	Malignant neoplasm of rectum	Female																									
A 49	Malignant neoplasm of larynx	Female																									
A 50	Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary	Female																									
A 51	Malignant neoplasm of breast	Male																									
A 52	Malignant neoplasm of cervix uteri	Female																									
A 53	Malignant neoplasm of other and unspecified parts of uterus	Female																									
A 54	Malignant neoplasm of prostate	Male																									
A 55	Malignant neoplasm of skin	Male																									
A 56	Malignant neoplasm of bone and connective tissue	Female																									
A 57	Malignant neoplasm of all other and unspecified sites	Male	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		Female	2	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

[illegible]

VITAL STATISTICS BRANCH

[illegible]

[illegible]

[illegible]

[illegible]

TABLE 17.—CAUSES OF DEATH (INTERMEDIATE LIST) BY SEX AND AGE IN ALBERTA, BY PLACE OF RESIDENCE, 1951—Continued

CAUSES OF DEATH	Total	Ages																	100 years and over	Not Stated							
		Under 1 year	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years			65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years
AN143 Head injury (excluding fracture)	55	..	..	1	..	1	1	1	2	8	5	5	4	1	5	3	2	5	3	6	2	..	..	..	..	..
AN144 Internal injury of chest, abdomen, and pelvis.....	10	..	..	..	..	..	2	1	..	3	1	..	..	..	1	..	..	..	1	1	..	..	..	..	..	..
AN145 Laceration and open wounds	86	..	..	1	..	..	1	1	6	8	7	11	3	6	6	9	11	3	2	6	2	1	1	..	..	..
AN146 Superficial injury, contusion and crushing with intact skin surface	18	..	..	..	..	..	1	1	1	6	1	1	2	1	..	2	1	..	..	1	1	1	1	..	..	..
AN147 Effects of foreign body entering through orifice.....	11	..	..	..	..	..	..	1	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
AN148 Burns .....	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
AN149 Effects of poisons	12	6	..	2	..	..	..	..	..	..	..	..	1	..	1	..	2	..	..	..	1	3	..	..	..	..
AN150 All other and unspecified effects of external causes	17	9	1	2	1	1	..	..	1	1	1	2	1	2	3	4	2	1	2	3	1	..	1	..	..	..
	7	1	1	..	..	..	1	1	1	4	3	2	1	2	3	4	2	2	4	..	..	..	..	..	..	..
	33	1	2	..	..	1	1	1	2	1	1	2	1	2	1	4	2	1	2	..	..	..	..	..	..	..
	21	2	..	2	..	1	1	..	2	1	1	2	3	..	4	..	..	2	..	..	..	..	..	..	..	..
	110	9	4	1	5	3	5	5	8	9	7	8	4	4	6	4	6	6	4	4	5	6	1	..	..	..
	30	8	1	2	..	1	..	1	2	3	..	3	..	1	2	1	..	1	1	1	1	1	..	..	..	..

TABLE 18.—CAUSES OF DEATH (INTERMEDIATE LIST) BY SEX AND MONTH OF DEATH IN ALBERTA, BY PLACE OF RESIDENCE, 1951

CAUSES OF DEATH	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
		637	601	720	573	585	612	555	582	549	586	544	623
ALL CAUSES	7167	382	367	427	343	363	367	346	367	334	377	346	470
	2738	255	234	293	230	222	245	209	215	215	209	198	213
A 1 Tuberculosis of respiratory system	66	7	3	9	7	3	5	6	3	9	5	3	6
A 2 Tuberculosis of meninges and central nervous system.....	53	6	6	4	4	1	6	5	2	8	4	3	4
A 3 Tuberculosis of intestines, peritoneum and mesenteric glands	5	...	...	2	...	...	...	1	...	...	...	...	2
A 4 Tuberculosis of bones and joints	7	1	...	2	...	2	...	...	...	...	2	...	...
	1	...	...	...	...	...	...	...	...	...	...	...	1
A 5 Tuberculosis, all other forms .....	...	...	...	...	...	...	...	...	...	...	...	...	...
A 6 Congenital syphilis	9	1	...	1	1	1	1	2	1	1	1	1	...
A 7 Early syphilis	5	...	...	...	...	...	...	...	2	...	...	...	...
A 8 Tabes dorsalis .....	...	...	...	...	...	...	...	...	...	...	...	...	...
A 9 General paralysis of insane	3	...	...	...	...	...	...	...	1	2	...	...	...
A 10 All other syphilis	13	...	1	4	...	1	...	1	2	1	...	3	...
A 11 Gonococcal infection	2	...	...	...	...	...	...	...	1	...	...	1	...
A 12 Typhoid fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...
A 13 Paratyphoid fever and other Salmonella infections.....	...	...	...	...	...	...	...	...	...	...	...	...	...
A 14 Cholera .....	...	...	...	...	...	...	...	...	...	...	...	...	...
A 15 Brucellosis (undulant fever)	1	...	...	...	...	...	...	...	...	...	...	...	1
A 16 Dysentery, all forms	2	...	...	...	1	...	...	...	1	...	...	...	...
	3	...	...	1	...	...	...	...	...	...	...	1	1
	

VITAL STATISTICS BRANCH

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

TABLE 18.—CAUSES OF DEATH (INTERMEDIATE LIST) BY SEX AND MONTH OF DEATH IN ALBERTA, BY PLACE OF RESIDENCE, 1951—Continued

CAUSES OF DEATH		Total	MONTHS											
			January	February	March	April	May	June	July	August	September	October	November	December
AE141	Accidental falls	41	4	5	3	1	4	4	3	2	5	1	6	3
	Male													
	Female	48	2	5	5	2	6	4	3	4	5	3	4	5
AE142	Accident caused by machinery	34	...	...	2	1	6	1	5	6	3	4	5	1
	Male													
	Female	1	...	...	...	...	...	...	...	...	...	1	...	...
AE143	Accident caused by fire and explosion of combustible material	22	3	...	2	3	1	5	...	1	3	...	1	3
	Male													
	Female	8	...	1	...	1	...	1	...	...	...	2	1	2
AF144	Accident caused by hot substance, corrosive liquid, steam, and radiation	2	...	...	...	...	...	...	...	...	...	1	...	1
	Male													
	Female	2	...	...	...	...	...	...	...	...	...	1	...	1
AE145	Accident caused by firearm	8	1	...	1	1	2	...	...	1	...	1	...	1
	Male													
	Female	5	1	2	...	1	...	1	...	...	...	...	...	...
AE146	Accidental drowning and submersion	30	...	...	...	5	1	1	9	3	2	3	2	...
	Male													
	Female	4	...	...	...	...	...	...	...	...	...	1	...	...
AE147	All other accidental causes	77	6	7	11	7	6	4	...	6	1	3	6	10
	Male													
	Female	27	3	1	5	4	3	...	3	1	2	2	...	2
AE148	Suicide and self-inflicted injury	67	8	2	5	7	10	2	6	7	7	4	3	6
	Male													
	Female	19	2	1	...	2	3	1	1	1	3	...	2	3
AE149	Homicide and injury purposely inflicted by other persons (not in war)	3	1	...	...	1	...	...	...	...	...	...	1	...
	Male													
	Female	2	...	...	...	...	...	1	...	...	...	...	...	...
AF150	Injury resulting from operations of war .....	...	...	...	...	...	...	...	...	...	...	...	...	...
	Male													
	Female .....	...	...	...	...	...	...	...	...	...	...	...	...	...
	Alternative classification of accidents, poisonings and violence (nature of injury)	482	34	29	29	31	54	40	55	52	41	39	41	37
	Male													
	Female	172	9	12	15	14	17	15	15	9	14	16	13	23
AN138	Fracture of skull	95	4	13	1	3	11	14	11	15	8	3	9	3
	Male													
	Female	26	...	1	2	2	1	7	6	1	1	2	...	3
AN139	Fracture of spine and trunk	39	4	2	1	2	5	...	6	6	4	7	1	1
	Male													
	Female	9	1	...	...	...	1	2	...	1	1	...	2	1
AN140	Fracture of limbs	26	3	2	...	...	1	1	3	3	5	1	1	4
	Male													
	Female	36	2	3	5	2	5	2	2	2	5	1	3	4
AN141	Dislocation without fracture .....	...	...	...	...	...	...	...	...	...	...	...	...	...
	Male													
	Female	2	...	...	1	...	...	...	...	...	...	...	...	...

A 16	Dysentery, all forms	Male
A 17	Scarlet fever	Female
A 18	Streptococcal sore throat	Male
A 19	Erysipelas	Female
A 20	Septicaemia and pyaemia	Male
A 21	Diphtheria	Female
A 22	Whooping cough	Male
A 23	Meningococcal infections	Female
A 24	Plague	Male
A 25	Leprosy	Female
A 26	Tetanus	Male
A 27	Anthrax	Female
A 28	Acute poliomyelitis	Male
A 29	Acute infectious encephalitis	Female
A 30	Late effects of acute poliomyelitis and acute infectious encephalitis	Male
A 31	Smallpox	Female
A 32	Measles	Male
A 33	Yellow fever	Female
A 34	Infectious hepatitis	Male
A 35	Rabies	Female
A 36	Typhus and other rickettsial diseases	Male
A 37	Malaria	Female
A 38	Schistosomiasis	Male
A 39	Hydatid disease	Female

[illegible]

[illegible]

TABLE 19.—CAUSES OF DEATH (INTERMEDIATE LIST) BY SEX AND AGE IN EDMONTON, BY PLACE OF RESIDENCE, 1951—Continued

CAUSES OF DEATH	Total	Ages															100 years and over	Not Stated									
		Under 1 year	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years			55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years
A 79 Rheumatic fever	Male .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 80 Chronic rheumatic heart disease	Female .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 81 Arteriosclerosis and degenerative heart disease...	Male .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 82 Other diseases of heart	Female .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 83 Hypertension with heart disease	Male .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 84 Hypertension without mention of heart.....	Female .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 85 Diseases of arteries	Male .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 86 Other diseases of circulatory system	Female .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 87 Acute upper respiratory infections	Male .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 88 Influenza	Female .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 89 Lobar pneumonia	Male .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 90 Bronchopneumonia	Female .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 91 Primary atypical, other and unspecified pneumonia	Male .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 92 Acute bronchitis	Female .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 93 Bronchitis, chronic and unqualified	Male .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 94 Hypertrophy of tonsils and adenoids	Female .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 95 Empyema and abscess of lung.....	Male .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 96 Pleurisy	Female .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

[illegible]

TABLE 19.—CAUSES OF DEATH (INTERMEDIATE LIST) BY SEX AND AGE IN EDMONTON, BY PLACE OF RESIDENCE, 1951—Continued

CAUSES OF DEATH	Total	AGES																		100 years and over	Not stated						
		Under 1 yr.	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years	65-69 years			70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years
A121 Infections of skin and subcutaneous tissue.....	Male ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A122 Arthritis and spondylitis	Female ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A123 Muscular rheumatism and rheumatism, unspecified	Male ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A124 Osteomyelitis and periostitis	Female ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A125 Ankylosis and acquired musculoskeletal deformities	Male ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A126 All other diseases of skin and musculoskeletal system	Female ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A127 Spina bifida and meningocele	Male ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A128 Congenital malformations of circulatory system ..	Female ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A129 All other congenital malformations	Male ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A130 Birth injuries	Female ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A131 Postnatal asphyxia and atelectasis	Male ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A132 Infections of the newborn	Female ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A133 Haemolytic disease of new born	Male ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A134 All other defined diseases of early infancy.....	Female ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A135 Ill-defined diseases peculiar to early infancy, and immaturity unqualified	Male ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A136 Senility without mention of psychosis	Female ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A137 Ill-defined and unknown causes	Male ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Female ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

[illegible]

TABLE 19.—CAUSES OF DEATH (INTERMEDIATE LIST) BY SEX AND AGE IN EDMONTON, BY PLACE OF RESIDENCE, 1951—Continued

CAUSES OF DEATH	Total	AGES																	100 years and over	Not stated						
		Under 1 yr.	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years			65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years
AN144 Internal injury of chest, abdomen, and pelvis.....	21	Male	1	...	...	...	1	...	2	3	1	3	2	...	1	...	3	1	1	2	1	1	...	...	...	...
AN145 Laceration and open wounds	2	Female ..	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
AN146 Superficial injury, contusion and crushing with intact skin surface .....	...	Female ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
AN147 Effects of foreign body entering through orifice.....	1	Male .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
AN148 Burns	2	Female ..	1	1	...	...	...	...	...	1	1	...	...	1	...	...	...	...	...	2	...	...	...	...	...	...
AN149 Effects of poisons	3	Male .....	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	1	...	...	...	...	...	...	...
AN150 All other and unspecified effects of external causes	7	Female ..	1	...	...	...	1	...	...	1	...	...	1	2	...	...	...	1	1	...	...	...	...	...	...	...
	13	Male	2	...	...	1	...	2	2	2	2	1	...	...	...	1	...	1	1	...	...	...	...	...	...	...
	6	Female ..	2	...	...	...	...	1	1	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...

TABLE 20.—CAUSES OF DEATH (INTERMEDIATE LIST) BY SEX AND AGE IN CALGARY, BY PLACE OF RESIDENCE, 1951

CAUSES OF DEATH	Total	Ages																	100 years and over	Not Stated									
		Under 1 year	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years			65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years		
ALL CAUSES	1146	92	7	6	1	2	2	2	5	8	11	16	23	21	33	60	72	112	140	191	149	107	58	23	5	..	..	..	..
	Male	61	4	4	1	1	1	1	2	4	7	12	12	13	21	44	47	76	95	119	83	50	33	10	1	..	..	..	..
	Female	31	3	2	..	1	1	1	3	4	4	4	11	8	12	16	25	36	45	72	66	57	25	13	4	..	..	..	..
A 1 Tuberculosis of the respiratory system	Male	9	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	3	1	3	..	..	..	..	..	..	..	..	..
	Female	4	..	..	..	..	..	..	..	1	..	..	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..
A 2 Tuberculosis of meninges and central nervous system	Male	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 3 Tuberculosis of intestines, peritoneum and mesenteric glands	Male	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 4 Tuberculosis of bones and joints	Male	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 5 Tuberculosis, all other forms	Male	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
	Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 6 Congenital syphilis	Male	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 7 Early syphilis	Male	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 8 Tabes dorsalis	Male	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 9 General paralysis of insane	Male	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 10 All other syphilis	Male	5	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	3	..	..	..	..	..	..	..	..	..	..	..
	Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 11 Gonococcal infection	Male	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 12 Typhoid fever	Male	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 13 Paratyphoid fever and other Salmonella infections	Male	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 14 Cholera	Male	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 15 Brucellosis (undulant fever)	Male	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE 20.—CAUSES OF DEATH (INTERMEDIATE LIST) BY SEX AND AGE IN CALGARY, BY PLACE OF RESIDENCE, 1951—Continued

CAUSES OF DEATH	Total	AGES																	100 years and over	Not stated							
		Under 1 year	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years			65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years
A 16 Dysentery, all forms	Male																										
A 17 Scarlet fever	Female																										
A 18 Streptococcal sore throat	Male																										
A 19 Erysipelas	Female																						1				
A 20 Septicaemia and pyaemia	Male																										
A 21 Diphtheria	Female																										
A 22 Whooping cough	Male																										
A 23 Meningococcal infections	Female																										
A 24 Plague	Male																										
A 25 Leprosy	Female																										
A 26 Tetanus	Male																										
A 27 Anthrax	Female																										
A 28 Acute poliomyelitis	Male																										
A 29 Acute infectious encephalitis	Female																										
A 30 Late effects of acute poliomyelitis and acute infectious encephalitis	Male																										
A 31 Smallpox	Female																										
A 32 Measles	Male																										
A 33 Yellow fever	Female																										

[illegible]

CAUSES OF DEATH	Total	AGES																Not stated										
		Under 1 yr.	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years		60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years	100 years and over	
A 57	Malignant neoplasm of all other and unspecified sites	23	2				1				1	3				1	2		1	2	5	2						
A 58	Leukaemia and aleukaemia	32	1									1	1	2	5			3		3	7	6	1					
A 59	Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system	3								1					1							1						
A 60	Benign neoplasms and neoplasms of unspecified nature	1											1						1									
A 61	Nontoxic goitre	2																			2							
A 62	Thyrotoxicosis with or without goitre	4						1			1								1									
A 63	Diabetes mellitus	3										1																
A 64	Avitaminosis and other deficiency states	10								1	1	1						2	1	2	1	1	1					
A 65	Anaemias	5																1	1	2								
A 66	Allergic disorders; all other endocrine, metabolic and blood diseases	1																				1						
A 67	Psychoses	3																		2								
A 68	Psychoneuroses and disorders of personality	12												2	1				1	2	3	1						
A 69	Mental deficiency	6	1															1	2	1								
A 70	Vascular lesions affecting central nervous system	1																										
A 71	Nonmeningococcal meningitis	1																										
A 72	Multiple sclerosis	79	1																									
		62	2							1		1	2								13	13	7	13	4	3		
		2	1									2									15	15		12	4	2		
		1																			1							

[illegible]

TABLE 20.—CAUSES OF DEATH (INTERMEDIATE LIST) BY SEX AND AGE IN CALGARY, BY PLACE OF RESIDENCE, 1951—Continued

[illegible]

[illegible]

TABLE 20.—CAUSES OF DEATH (INTERMEDIATE LIST) BY SEX AND AGE IN CALGARY, BY PLACE OF RESIDENCE, 1951—Continued

CAUSES OF DEATH		Total	AGES																	100 years and over	Not stated							
			Under 1 year	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years			65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years
Alternative classification of accidents, poisonings and violence (external cause)	Male Female	30 29	1 1	1 1	1 1	1 1	1 1	1 1	2 2	2 1	3 3	1 2	3 2	1 2	4 4	2 2	5 1	2 1	4 3	2 1	4 2	3 3	2 2	1 1	2 2	1 1		
AE138 Motor vehicle accidents	Male Female	4 6	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1		
AE139 Other transport accidents	Male Female	2 3	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1		
AE140 Accidental poisoning	Male Female	1 2	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1		
AE141 Accidental falls	Male Female	6 11	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1		
AE142 Accident caused by machinery	Male Female	11 11	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1		
AE143 Accident caused by fire and explosion of combustible material	Male Female	11 11	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1		
AF144 Accident caused by hot substance, corrosive liquid, steam, and radiation	Male Female	11 11	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1		
AE145 Accident caused by firearm	Male Female	11 11	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1		
AE146 Accidental drowning and submersion	Male Female	2 7	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1		
AE147 All other accidental causes	Male Female	7 2	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1		
AE148 Suicide and self-inflicted injury	Male Female	7 4	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1		
AE149 Homicide and injury purposely inflicted by other persons (not in war)	Male Female	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1		
AF150 Injury resulting from operations of war	Male Female	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1		
Alternative classification of accidents, poisonings and violence (nature of injury)	Male Female	30 29	1 1	1 1	1 1	1 1	1 1	1 1	2 2	2 1	3 3	1 2	3 2	1 2	4 4	2 2	5 1	2 1	4 3	2 1	4 2	3 3	2 2	1 1	2 2	1 1		

TABLE 21.—CLASSIFICATION OF ACCIDENTAL DEATHS ACCORDING TO THE NATURE OF INJURY, IN ALBERTA, 1951

CAUSES OF DEATH		Male	Female
	Fracture of skull (N800-N804)	95	26
E800-E802	Railway accidents	2	....
E810-E835	Motor vehicle accidents	54	20
E840-E845	Other road vehicle accidents	3	3
E860-E866	Aircraft accidents	3	....
E900-E904	Accidental falls	8	1
E910-E936	Other accidents	23	1
E970-E979	Suicide and self-inflicted injury	2	....
E980-E985	Homicide and injury purposely inflicted by other persons (not in war) .....	....	1
	Fracture of spine and trunk (N805-N809)	39	9
E800-E802	Railway accidents	1	....
E810-E835	Motor vehicle accidents	27	5
E900-E904	Accidental falls	4	2
E910-E936	Other accidents	6	....
E960-E965	Late effects of injury and poisoning .....	....	1
E970-E979	Suicide and self-inflicted injury	1	1
	Fracture of limbs (N810-N829)	26	36
E800-E802	Railway accidents	1	....
E810-E835	Motor vehicle accidents	5	....
E900-E904	Accidental falls	20	36
	Dislocation without fracture (N830-N839) .....	....	2
E810-E835	Motor vehicle accidents .....	....	1
E910-E936	Other accidents .....	....	1
	Head injury (excluding fracture) (N850-N856).....	55	10
E800-E802	Railway accidents	1	1
E810-E835	Motor vehicle accidents	9	1
E840-E845	Other road vehicle accidents	1	....
E900-E904	Accidental falls	4	5
E910-E936	Other accidents	9	1
E960-E965	Late effects of injury and poisoning	1	....
E970-E979	Suicide and self-inflicted injury	27	2
E980-E985	Homicide and injury purposely inflicted by other persons (not in war)	3	....
	Internal injury of chest, abdomen and pelvis (N860-N869)	86	18
E800-E802	Railway accidents	6	....
E810-E835	Motor vehicle accidents	43	10
E840-E845	Other road vehicle accidents	2	....
E900-E904	Accidental falls	3	2
E910-E936	Other accidents	26	3
E970-E979	Suicide and self-inflicted injury	6	2
E980-E985	Homicide and injury purposely inflicted by other persons (not in war) .....	....	1
	Laceration and open wounds (N870-N908)	11	....
E800-E802	Railway accidents	4	....
E910-E936	Other accidents	2	....
E970-E979	Suicide and self-inflicted injury	5	....
	Superficial injury, contusion and crushing with intact skin surface (N910-N929)	1	1
E900-E904	Accidental falls	1	1
	Effects of foreign body entering through orifice (N930-N936)	9	12
E910-E936	Other accidents	9	12
	Burns (N940-N949)	17	7
E860-E866	Aircraft accidents	2	....
E910-E936	Other accidents	15	7
	Effects of poisons (N960-N979)	33	21
E810-E835	Motor vehicle accidents	1	....
E850-E858	Water transport accidents .....	....	2
E870-E888	Accidental poisoning by solid and liquid substances	5	4
E890-E895	Accidental poisoning by gases and vapours.....	13	6
E910-E936	Other accidents	8	3
E970-E979	Suicide and self-inflicted injury	6	6

CAUSES OF DEATH		Male	Female
All other and unspecified effects of external causes (N950-N959, N980-N999)		110	30
E810-E835	Motor vehicle accidents	2	1
E850-E858	Water transport accidents	12	2
E860-E866	Aircraft accidents	1	....
E900-E904	Accidental falls	1	1
E910-E936	Other accidents	73	18
E960-E965	Late effects of injury and poisoning	1	....
E970-E979	Suicide and self-inflicted injury	20	8

TABLE 22.—TOTAL DEATHS (EXCLUSIVE OF STILLBIRTHS) AND DEATHS IN INSTITUTIONS IN CITIES OF 5,000 POPULATION AND OVER, BY PLACE OF OCCURRENCE AND PLACE OF RESIDENCE IN ALBERTA, 1951

Cities	All Deaths						Deaths in Institutions					
	Place of occurrence	Residence elsewhere		Deaths of residents occurring elsewhere		Place of residence	Place of occurrence	Residence elsewhere		Deaths of residents occurring elsewhere		Place of residence
		In Canada	In United States	In Canada	In United States			In Canada	In United States	In Canada	In United States	
Cities:												
Calgary	1324	273	4	94	5	1146	935	242	2	62	3	756
Edmonton	1607	557	1	96	7	1152	1299	529	1	43	1	813
Lethbridge	240	81	1	25	1	184	180	74	...	17	...	123
Medicine Hat	166	37	1	12	...	140	126	34	1	11	...	102

TABLE 24.—DEATHS AT ALL AGES ACCORDING TO THE ABBREVIATED LIST OF 50 CAUSES, BY PROVINCES, 1951

Int. List No.		CAUSES OF DEATH	Canada	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
Abbrev. List	Detailed List												
B 1	001-008	Tuberculosis of respiratory system.....	2,851	197	14	106	105	1,283	534	116	123	119	254
B 2	010-019	Tuberculosis, other forms	566	59	3	20	29	270	45	42	33	27	38
B 3	020-029	Syphilis and its sequelae	301	4	2	20	8	115	89	14	7	18	24
B 4	040	Typhoid fever	11	1	.....	.....	1	7	1	.....	1	.....	.....
B 5	043	Cholera .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B 6	045-048	Dysentery, all forms	52	.....	.....	2	2	12	20	6	3	5	2
B 7	050-051	Scarlet fever, and streptococcal sore throat.....	45	.....	.....	.....	1	17	13	.....	5	7	2
B 8	055	Diphtheria	37	.....	.....	1	4	26	2	1	2	1	.....
B 9	056	Whooping cough	202	33	.....	8	37	52	32	11	14	7	8
B10	057	Meningococcal infections	89	6	.....	4	4	26	33	3	4	3	6
B11	058	Plague .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B12	080	Acute poliomyelitis	162	.....	2	23	2	10	101	4	12	2	6
B13	084	Smallpox .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B14	085	Measles	177	14	2	10	8	74	38	13	.....	12	6
B15	100-108	Typhus and other rickettsial diseases .....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
B16	110-117	Malaria	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B17	030,039,041,042, 044,049,052-054, 059-074,081-083, 086-096,120-138 140-205	All other diseases classified as infective and parasitic	282	2	1	10	6	88	101	19	25	14	16
B18	(140-200,202 203,205) (201) (204) 210-239 260 290-293 330-334 340 400-402 410-416 420-422 430-434 440-443 444-447 480-483 490-493 500-502 540,541 550-553 560,561,570 543,571,572	Malignant neoplasm, including neoplasms of lym- phatic and haematopoietic tissues	17,821	348	116	832	633	4,735	6,426	1,009	926	1,065	1,731
B19		Cancer excluding Hodgkin's disease, leuk- aemia and aleukaemia	16,967	341	111	796	601	4,544	6,103	945	873	1,005	1,648
B20		Hodgkin's disease	216	3	3	8	10	47	82	16	9	16	22
B21		Leukaemia and aleukaemia	638	4	2	28	22	144	241	48	44	44	61
B22		Benign and unspecified neoplasms	308	11	1	11	10	76	108	16	17	21	37
B23		Diabetes mellitus	1,584	21	7	76	52	502	584	68	64	89	121
B24		Anaemias	446	6	2	18	19	138	151	24	31	21	36
B25		Vascular lesions affecting central nervous system Nonmeningococcal meningitis	12,880	253	129	710	444	2,262	5,700	767	665	756	1,194
B26		Rheumatic fever	287	14	2	14	11	143	42	16	11	19	15
B27		Chronic rheumatic heart disease	259	3	.....	9	7	137	47	11	4	19	22
B28		Arteriosclerosis and degenerative heart disease ..	1,618	24	13	66	48	460	564	77	97	98	171
B29		Other diseases of heart	31,133	308	196	1,259	1,061	6,585	13,431	1,701	1,647	1,658	3,287
B30		Hypertension with heart disease	1,836	91	11	106	78	593	396	132	117	163	149
B31		Hypertension without mention of heart	4,708	100	38	275	186	1,441	1,542	182	254	194	496
B32		Influenza	1,086	22	13	59	38	411	289	62	50	64	78
B33		Pneumonia	2,572	114	50	223	163	881	684	77	139	114	127
B34		Bronchitis	4,664	157	45	220	247	1,327	1,356	300	259	302	451
B35		Ulcer of stomach and duodenum	549	25	7	29	16	144	168	37	36	28	59
B36		Appendicitis	712	11	2	26	13	149	279	37	28	57	110
B37		Intestinal obstruction and hernia	260	11	1	9	13	104	59	12	13	18	20
B38		Gastritis, duodenitis, enteritis and colitis, except diarrhoea of the newborn	759	15	8	42	26	243	227	35	50	50	63
		Cirrhosis of liver	1,233	45	8	29	74	507	313	52	64	62	79
		Nephritis and nephrosis	607	2	4	16	9	194	217	26	22	23	94
			3,042	36	41	97	107	1,741	594	102	110	88	126

B39	610	Hyperplasia of prostate	728	12	7	40	27	200	224	33	60	40	85
B40	640-652,660, 670-689	Complications of pregnancy, childbirth and the puerperium	405	25	1	12	11	180	97	22	22	15	20
B41	750-759	Congenital malformations	2,435	64	12	106	97	796	828	98	110	166	158
B42	760-762	Birth injuries, postnatal asphyxia and atelectasis	2,622	60	15	133	117	857	838	131	121	171	179
B43	763-768	Infections of the newborn	659	18	3	20	43	321	124	38	34	28	30
B44	769-776	Other diseases peculiar to early infancy, and im- maturity unqualified	3,949	144	21	151	207	1,616	1,000	140	188	262	220
B45	780-795	Senility without mention of psychosis, ill-defined and unknown causes	2,235	341	16	143	252	591	387	145	92	134	134
B46	Residual	All other diseases	10,059	236	57	490	333	3,253	3,070	672	525	573	850
BE47	E810-E835	Motor vehicle accidents	2,662	26	23	109	117	814	954	105	98	179	237
BE48	E800-E802, E840-E962	All other accidents	5,372	132	26	242	185	1,302	1,826	273	290	384	712
BE49	E963,E970-E979	Suicide and self-inflicted injury	1,033	12	5	28	19	177	385	92	63	86	166
BE50	E964,E965, E980-E999	Homicide and operations of war	155	1	....	8	3	40	61	14	4	5	19
		All causes	125,454	3,004	904	5,812	4,873	34,900	43,981	6,735	6,440	7,167	11,638

TABLE 25.—DEATH RATES PER 100,000 POPULATION AT ALL AGES ACCORDING TO THE INTERNATIONAL ABBREVIATED LIST OF 50 CAUSES, BY PROVINCES, 1951

Int. List No.		CAUSES OF DEATH	Canada	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
Abbrev. List	Detailed List												
B 1	001-008	Tuberculosis of respiratory system.....	20.4	54.5	14.2	16.5	20.4	31.6	11.6	14.9	14.8	12.7	21.8
B 2	010-019	Tuberculosis, other forms	4.0	16.3	3.0	3.1	5.6	6.7	1.0	5.4	4.0	2.9	3.3
B 3	020-029	Syphilis and its sequelae	2.2	1.1	2.0	3.1	1.6	2.8	1.9	1.8	0.8	1.9	2.1
B 4	040	Typhoid fever	0.1	0.3	....	....	0.2	0.2	(2)	....	0.1	....	....
B 5	043	Cholera .....	....	....	....	....	....	....	....	....	....	....	....
B 6	045-048	Dysentery, all forms	0.4	....	....	0.3	0.4	0.3	0.4	0.8	0.4	0.5	0.2
B 7	050,051	Scarlet fever, and streptococcal sore throat.....	0.3	....	....	....	0.2	0.4	0.3	....	0.6	0.7	0.2
B 8	055	Diphtheria	0.3	....	....	0.2	0.8	0.6	(2)	0.1	0.2	0.1	....
B 9	056	Whooping cough	1.4	9.1	....	1.2	7.2	1.3	0.7	1.4	1.7	0.7	0.7
B10	057	Meningococcal infections	0.6	1.7	....	0.6	0.8	0.6	0.7	0.4	0.5	0.3	0.5
B11	058	Plague .....	....	....	....	....	....	....	....	....	....	....	....
B12	080	Acute poliomyelitis	1.2	....	2.0	3.6	0.4	0.2	2.2	0.5	1.4	0.2	0.5
B13	084	Smallpox .....	....	....	....	....	....	....	....	....	....	....	....
B14	085	Measles	1.3	3.9	2.0	1.6	1.6	1.8	0.8	1.7	....	1.3	0.5
B15	100-108	Typhus and other rickettsial diseases .....	....	....	....	....	....	....	....	....	....	....	....
B16	110-117	Malaria	(2)	....	....	....	....	....	(2)	....	....	....	....
B17	030,039,041,042, 044,049,052-054, 059-074,081-083, 086-096,120-138	All other diseases classified as infective and parasitic	2.0	0.6	1.0	1.6	1.2	2.2	2.2	2.4	3.0	1.5	1.4
B18	140-205	Malignant neoplasm, including neoplasms of lym- phatic and haematopoietic tissues	127.4	96.3	117.9	129.5	122.7	116.7	139.8	129.9	111.3	113.4	148.6

TABLE 25.—DEATH RATE PER 100,000 POPULATION AT ALL AGES ACCORDING TO THE INTERNATIONAL ABBREVIATED LIST OF 50 CAUSES, BY PROVINCES, 1951—Continued

VITAL STATISTICS BRANCH

Int. List No.		CAUSES OF DEATH	Canada	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
Abbrev. List	Detailed List												
B19	(140-200,202 203,205)	Cancer excluding Hodgkin's disease, leukemia and aleukaemia	121.3	94.4	112.8	123.9	116.5	112.0	132.7	121.7	105.0	107.0	141.4
B20	(201)	Hodgkin's disease	1.5	0.8	3.0	1.2	1.9	1.2	1.8	2.1	1.1	1.7	1.9
B21	(204)	Leukaemia and aleukaemia	4.6	1.1	2.0	4.4	4.3	3.6	5.2	6.2	5.3	4.7	5.2
B22	210-239	Benign and unspecified neoplasms	2.2	3.0	1.0	1.7	1.9	1.9	2.3	2.1	2.0	2.2	3.2
B23	260	Diabetes mellitus	11.3	5.8	7.1	11.8	10.1	12.4	12.7	8.8	7.7	9.5	10.4
B24	290-293	Anaemias	3.2	1.7	2.0	2.8	2.7	3.4	3.3	3.1	3.7	2.2	3.1
B25	330-334	Vascular lesions affecting central nervous system	92.1	70.0	131.1	110.5	86.1	55.8	124.0	98.8	80.0	80.5	102.5
B26	340	Nonmeningococcal meningitis	2.1	3.9	2.0	2.2	2.1	3.5	0.9	2.1	1.3	2.0	1.3
B27	400-402	Rheumatic fever	1.9	0.8	...	1.4	1.4	3.4	1.0	1.4	0.5	2.0	1.9
B28	410-416	Chronic rheumatic heart disease	11.6	6.6	13.2	10.3	9.3	11.3	12.3	9.9	11.7	10.4	14.7
B29	420-422	Arteriosclerotic and degenerative heart disease	222.6	85.2	199.1	195.9	205.7	162.4	292.1	219.0	198.0	176.5	282.1
B30	430-434	Other diseases of heart	13.1	25.2	11.2	16.5	15.1	14.6	8.6	17.0	14.1	17.3	12.8
B31	440-443	Hypertension with heart disease	33.7	27.7	38.6	42.8	36.1	35.5	33.5	23.4	30.5	20.6	42.6
B32	444-447	Hypertension without mention of heart	7.8	6.1	13.2	9.2	7.4	10.1	6.3	8.0	6.0	6.8	6.7
B33	480-483	Influenza	18.4	31.5	50.8	34.7	31.6	21.7	14.9	9.9	16.7	12.1	10.9
B34	490-493	Pneumonia	33.4	43.4	45.7	34.2	47.9	32.7	29.5	38.6	31.1	32.1	38.7
B35	500-502	Bronchitis	3.9	6.9	7.1	4.5	3.1	3.6	3.7	4.8	4.3	3.0	5.1
B36	540,541	Ulcer of stomach and duodenum	5.1	3.0	2.0	4.0	2.5	3.7	6.1	4.8	3.4	6.1	9.4
B37	550-553	Appendicitis	1.9	3.0	1.0	1.4	2.5	2.6	1.3	1.5	1.6	1.9	1.7
B38	560,561,570	Intestinal obstruction and hernia	5.4	4.2	8.1	6.5	5.0	6.0	4.9	4.5	6.0	5.3	5.4
B39	571,572	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of the newborn	8.8	12.5	8.1	4.5	14.3	12.5	6.8	6.7	7.7	6.6	6.8
B40	581	Cirrhosis of liver	4.3	0.6	4.1	2.5	1.7	4.8	4.7	3.3	2.6	2.4	8.1
B41	590-594	Nephritis and nephrosis	21.8	10.0	41.7	15.1	20.7	42.9	12.9	13.1	13.2	9.4	10.8
B42	610	Hyperplasia of prostate	5.2	3.3	7.1	6.2	5.2	4.9	4.9	4.2	7.2	4.3	7.3
B43	650-652,660,670-689	Complications of pregnancy, childbirth and the puerperium	2.9	6.9	1.0	1.9	2.1	4.4	2.1	2.8	2.6	1.6	1.7
B44	750-759	Congenital malformations	17.4	17.7	12.2	16.5	18.8	19.6	18.0	12.6	13.2	17.7	13.6
B45	760-762	Birth injuries, postnatal asphyxia and atelectasis	18.7	16.6	15.2	20.7	22.7	21.1	18.2	16.9	14.5	18.2	15.4
B46	763-768	Infections of the newborn	4.7	5.0	3.0	3.1	8.3	7.9	2.7	4.9	4.1	3.0	2.6
B47	769-776	Other diseases peculiar to early infancy, and immaturity unqualified	28.2	39.8	21.3	23.5	40.1	39.8	21.8	18.0	22.6	27.9	18.9
B48	780-795	Senility without mention of psychosis, ill-defined and unknown causes	16.0	94.4	16.3	22.3	48.9	14.6	8.4	18.7	11.1	14.3	11.5
B49	Residual	All other diseases	71.9	65.3	57.9	76.3	64.6	80.2	66.8	86.5	63.1	61.0	72.9
BE47	E810,E825	Motor vehicle accidents	19.0	7.2	23.4	17.0	22.7	20.1	20.8	13.5	11.8	19.1	20.3
BE48	E800-E802,E840-E962	All other accidents	38.4	36.5	26.4	37.7	35.9	32.1	39.7	35.2	34.9	40.9	61.1
BE49	E963,E970-E979	Suicide and self-inflicted injury	7.4	3.3	5.1	4.4	3.7	4.4	8.4	11.8	7.6	9.2	14.2
BE50	E964,E965,E980-E999	Homicide and operations of war	1.1	0.3	...	1.2	0.6	1.0	1.3	1.8	0.5	0.5	1.6
All causes			897.1	831.2	918.4	904.5	944.9	860.5	956.5	867.9	774.3	762.9	998.8

TABLE 26.—CERTAIN CAUSES OF DEATH BY NUMBERS AND RATES FOR EACH YEAR OF THE LAST DECENNIAL PERIOD

CAUSE OF DEATH	1951		1950		1949		1948		1947		1946		1945		1944		1943		1942	
	1951		1950		1949		1948		1947		1946		1945		1944		1943		1942	
	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population
Diseases of the Heart	2113	224	2046	228	2033	233	1896	224	1756	213	1721	214	1663	199	1534	186	1550	194	1483	184
Cancer	1065	113	997	110	957	109	975	115	878	107	860	107	830	100	781	84	748	94	784	97
Diseases of the Arteries	129	13	133	14	128	14	28	3	117	14	102	12	138	16	121	14	116	14	97	12
Violent Deaths (Suicides excepted)	568	60	573	64	596	68	593	70	484	59	456	56	472	57	484	59	588	73	483	58
Pneumonia (all forms)	341	36	275	30	376	43	362	42	374	45	362	45	369	44	379	46	497	51	335	41
Pulmonary tuberculosis	119	12	137	15	155	17	200	23	215	26	233	29	200	25	229	27	224	28	214	26
Influenza	114	12	26	2	41	4	36	4	72	8	89	11	58	7	128	15	153	19	75	9
Nephritis	88	9	90	10	217	24	219	25	197	24	215	26	255	31	257	31	284	36	260	32
Appendicitis	18	1	22	2	23	2	34	4	36	4	46	5	42	5	54	6	77	9	69	8
Suicides	86	9	82	9	80	9	84	9	67	8	100	12	76	9	57	7	79	10	86	10
Cerebral Haemorrhage	756	80	693	77	666	76	568	67	523	63	503	62	513	62	454	55	472	59	450	56
Diabetes Mellitus	89	9	91	10	156	17	134	15	119	14	119	14	143	17	120	14	116	14	106	13
Diarrhoea and Enteritis	60	...	69	7	63	7	93	10	106	13	128	15	87	10	120	14	116	14	106	9
Puerperal Causes	15	...	19	2	25	2	29	3	22	3	32	4	48	5	31	3	52	6	43	5
Whooping Cough	7	...	3	...	5	...	11	1	9	1	19	2	43	5	42	5	11	1	12	1
Scarlet Fever	6	...	11	1	...	...	...	...	...	...	1	...	1	...	9	1	7	...	11	1
Diphtheria	1	...	1	...	12	1	10	...	7	1	7	...	9	1	5	...	12	1	11	1
Typhoid and Paratyphoid .....	...	...	1	...	...	...	...	...	3	...	1	...	2	...	8	...	1	...	1	...
Measles	12	...	8	...	19	...	7	...	21	...	8	...	6	...	10	1	19	2	2	...
Poliomyelitis	2	...	8	...	9	1	28	3	7	1	8	...	...	...	1	...	...	...	...	...

TABLE 27.—MARRIAGES IN THE PROVINCE OF ALBERTA, BY MONTHS, 1951

	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
Edmonton	2662	124	121	148	188	235	371	262	270	280	224	227	212
Calgary	1938	69	100	119	136	149	301	159	197	215	166	160	167
Lethbridge	392	24	22	24	18	27	60	27	40	34	37	44	35
Medicine Hat	252	7	7	18	16	13	37	22	30	15	24	34	29
Red Deer	167	8	7	16	5	13	23	16	14	10	24	15	16
Drumh��ller	78	6	1	2	6	5	5	5	11	5	8	9	15
Wetaskiwin	91	3	4	5	12	7	7	9	10	7	10	11	6
Rural Districts	3725	164	137	184	222	241	552	468	349	275	354	498	281
Total for the Province.....	9305	405	399	516	603	690	1356	968	921	841	847	998	761

TABLE 28.—MARITAL STATUS OF BRIDEGROOMS AND BRIDES IN ALBERTA, 1951

	Marriages between										Per cent. of Bridegrooms who were			Per cent. of Brides who were		
	Bachelors and			Widowers and			Divorced men and		Bachelors	Widowers	Divorced	Spinsters	Widows	Divorced		
	Spinsters	Widows	Divorced Women	Spinsters	Widows	Divorced Women	Spinsters	Widows							Divorced Women	
Total Marriages	9305	7978	230	285	134	191	46	303	47	91	91.3	4.0	4.7	90.4	5.0	4.5
Total for the Province																

TABLE 29.—MARRIAGES—AGES OF BRIDEGROOMS AND BRIDES IN ALBERTA, 1951.

[illegible]

TABLE 30.—MARRIAGES—BIRTHPLACE OF BRIDEGROOMS AND BRIDES, IN ALBERTA, 1951

Birthplaces of Bridegrooms	Birthplaces of Brides																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	Canada												British Isles				Europe													Asia			United States	Other American Countries	Other Countries	Unspecified																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Newfoundland	P. E. Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Prov. unspecified	England	Ireland	Scotland	Wales	Other	British Possessions	Austria	Belgium	Czechoslovakia	Denmark	Finland	France	Germany	Hungary	Italy	Netherlands	Norway	Poland	Roumania	Russia (U.S.S.R.)	Sweden					Yugoslavia	Other	China	Japan	Other																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
CANADA	7603	5	10	32	13	46	133	187	991	5555	156	5	88	11	35	12	3	8	4	2	13	6	3	3	11	4	2	11	5	61	10	44	5	7	116	4	1	1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Newfoundland	4	1							3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Prince Edward Island	18		3		1		1	2	3	6	2		1	1	2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							

[illegible]

Mormons	192	9	3	2	12	2	1	1	124	1	1	...	4	...	10	...	34	...	3							
Non-denominational	300	18	2	9	1	1	18	...	2	...	1	1	3	129	9	...	41	...	45							
Oriental religions	18	...	...	...	...	...	...	...	...	...	...	...	...	...	1	14	...	...	1	...	...	1	...	...						
Pentecostal Assemblies	123	2	...	5	...	...	1	...	6	...	...	...	...	...	1	2	76	...	5	1	7	...	10	...	
Plymouth Brethren	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...	1	...	...						
Presbyterians	437	3	1	20	1	...	1	9	30	...	2	...	...	...	6	3	1	5	137	...	44	...	112	...					
Reformed Churches	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(Christian)	46	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	40	2	1	2	...
Roman Catholics	1842	1	...	13	1	...	...	44	80	...	1	...	...	...	12	26	9	...	22	...	1253	...	204	11			
Salvation Army	26	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	1	...	1	...	3	9	4	...
Society of Friends	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Spiritualists	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Swedenborgians	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Unitarians	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...			
United Church of	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Canada	2785	3	2	53	3	...	1	35	1	162	5	3	4	42	17	...	14	84	1	205	5	1812	1	12								
Other religions	6	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	...						
Non-religious denom-	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
inations	140	1	7	4	...	...	1	2	14	...	2	...	...	6	6	...	2	1	1	24	...	24	...	44				
Unspecified or	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
unknown	4	...	...	...	...	...	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...						
Total brides	9305	32	1016	8	303	24	6	24	9	367	4	21	25	859	126	24	14	212	228	16	141	7	349	48	1917	24	1	...	2895	10	83	2

TABLE 32.—DIVORCES AND NULLITIES BY JUDICIAL DISTRICTS
FOR THE YEAR 1951, ALBERTA

Judicial Districts	Divorces			Nullities		
	Number of Divorces	Granted to Husband	Granted to Wife	Number of Nullities	Granted to Husband	Granted to Wife
Edmonton	290	118	172	5	1	4
Calgary	214	90	124	6	1	5
Lethbridge	37	17	20	...	...	...
Medicine Hat	11	7	4	...	...	...
Peace River	12	8	4	1	1	...
Grande Prairie	1	...	1	...	...	...
Hanna	3	2	1	...	...	...
Red Deer	12	7	5	...	...	...
Drumheller .....	...	...	...	...	...	...
Macleod	6	4	2	...	...	...
Wetaskiwin	3	2	1	1	...	1
Total.....	589	255	334	13	3	10

DIVORCES IN ALBERTA SINCE THE PASSING OF THE ACT

Year	Granted to Husband	Granted to Wife	Total
1919	3	3	6
1920	74	26	100
1921	53	37	90
1922	80	49	129
1923	57	32	89
1924	66	53	119
1925	59	42	101
1926	79	75	154
1927	83	66	149
1928	91	84	175
1929	77	71	148
1930	64	87	151
1931	69	87	156
1932	68	81	149
1933	56	79	135
1934	62	106	168
1935	74	135	209
1936	74	135	209
1937	102	139	241
1938	105	162	267
1939	104	163	267
1940	119	154	273
1941	135	176	311
1942	179	201	380
1943	190	223	413
1944	245	243	488
1945	302	273	575
1946	494	480	974
1947	404	478	882
1948	302	357	659
1949	262	332	594
1950	249	311	550
1951	255	334	589

TABLE 33.—BIRTHS OF INDIANS (EXCLUSIVE OF STILLBIRTHS), BY MONTHS IN ALBERTA, BY PLACE OF RESIDENCE OF MOTHER, 1951

	Total	Months											
		January	February	March	April	May	June	July	August	September	October	November	December
Total for the Province	1334	107	112	136	119	140	117	97	107	87	99	105	108

TABLE 34.—LEGITIMATE AND ILLEGITIMATE BIRTHS OF INDIANS (EXCLUSIVE OF STILLBIRTHS) IN ALBERTA, BY PLACE OF RESIDENCE OF MOTHER, 1951

	Total Births			Legitimate			Illegitimate		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Alberta	1334	685	649	977	505	472	357	180	177

TABLE 35.—DEATHS OF INDIAN CHILDREN UNDER ONE YEAR (EXCLUSIVE OF STILLBIRTHS) FROM CERTAIN SPECIFIED CAUSES BY SEX IN ALBERTA, BY PLACE OF RESIDENCE, 1951

Int. list No.	Causes of Death	Total	Male	Female
	ALL CAUSES	157	87	70
001-019	Tuberculosis	6	4	2
020-029	Syphilis .....	...	...	...
045-048	Dysentery	3	1	2
050	Scarlet fever .....	...	...	...
052	Erysipelas .....	...	...	...
055	Diphtheria .....	...	...	...
056	Whooping cough	2	1	1
057	Meningococcal infections .....	...	...	...
085	Measles	4	2	2
273	Diseases of the thymus gland	1	...	1
340	Meningitis (non-meningococcal)	3	1	2
391,392	Otitis media	1	...	1
480-483	Influenza	10	4	6
490-493	Pneumonia (4 weeks and over)	40	19	21
500-502	Bronchitis	2	1	1
543	Gastritis and duodenitis .....	...	...	...
571	Gastro-enteritis and colitis .....	...	...	...
572	Chronic enteritis and ulcerative colitis	22	14	8
750-759	Congenital malformations .....	...	...	...
752	Congenital malformations	4	1	3
754	Congenital malformations of circulatory system....	...	...	...
750,751, 753,755-				
759	Others under this title	2	1	1
760,761	Injury at birth	2	...	2
762	Postnatal asphyxia and atelectasis	6	3	3
763	Pneumonia of newborn (under 4 weeks).....	4	1	3
764	Diarrhoea of newborn (under 4 weeks).....	7	5	2
769	Antenatal toxæmia	1	1	...
770	Erythroblastosis	1	...	1
772	Nutritional maladjustment	1	1	...
773	Ill-defined diseases peculiar to early infancy...	6	4	2
774-776	Immaturity	3	3	...
795	Ill-defined and unknown causes	8	5	3
	Other specified causes	11	9	2
800-936	Accidental causes	3	2	1
	Other specified causes	8	5	3

TABLE 36.—CAUSES OF DEATH (INTERMEDIATE LIST) OF INDIANS BY SEX AND AGE IN ALBERTA, BY PLACE OF RESIDENCE, 1951

[illegible]

[illegible]

TABLE 36.—CAUSES OF DEATH (INTERMEDIATE LIST) OF INDIANS BY SEX AND AGE IN ALBERTA, BY PLACE OF RESIDENCE, 1951—Continued

CAUSES OF DEATH	Total	AGES																100 years and over	Not stated								
		Under 1 yr.	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years			60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years
A 41 Ankylostomiasis	Male	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 42 Other diseases due to helminths	Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 43 All other diseases classified as infective and parasitic	Male	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 44 Malignant neoplasm of buccal cavity and pharynx	Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 45 Malignant neoplasm of oesophagus	Male	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 46 Malignant neoplasm of stomach	Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 47 Malignant neoplasm of intestine, except rectum	Male	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..
A 48 Malignant neoplasm of rectum	Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 49 Malignant neoplasm of larynx	Male	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
A 50 Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary	Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 51 Malignant neoplasm of breast	Male	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 52 Malignant neoplasm of cervix uteri	Female	2	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 53 Malignant neoplasm of other and unspecified parts of uterus	Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 54 Malignant neoplasm of prostate	Male	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 55 Malignant neoplasm of skin	Male	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 56 Malignant neoplasm of bone and connective tissue	Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 57 Malignant neoplasm of all other and unspecified sites	Female	2	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..

[illegible]

CAUSES OF DEATH		Total	AGES																Not stated									
			Under 1 year	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years		60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years	100 years and over
A 81	Arteriosclerotic and degenerative heart disease ...	Male	11	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 82	Other diseases of heart	Female	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 83	Hypertension with heart disease	Male	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 84	Hypertension without mention of heart.....	Female	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 85	Diseases of arteries	Male .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 86	Other diseases of circulatory system	Female .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 87	Acute upper respiratory infections	Male	3	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 88	Influenza	Female	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 89	Lobar pneumonia	Male	8	4	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 90	Bronch pneumonia	Female	16	6	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 90	Bronchopneumonia	Male	3	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 90	Bronchopneumonia	Female	5	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 91	Primary atypical, other and unspecified pneumonia	Male	18	10	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 91	Primary atypical, other and unspecified pneumonia	Female	10	8	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 92	Acute bronchitis	Male	10	6	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 92	Acute bronchitis	Female	12	9	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 93	Bronchitis, chronic and unqualified	Male	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 93	Bronchitis, chronic and unqualified	Female	3	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 94	Hypertrophy of tonsils and adenoids	Male .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 95	Empyema and abscess of lung.....	Female	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 96	Pleurisy	Male .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 97	All other respiratory diseases	Female .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 97	All other respiratory diseases	Male	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 98	Diseases of teeth and supporting structures.....	Female .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 98	Diseases of teeth and supporting structures.....	Male .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 98	Diseases of teeth and supporting structures.....	Female .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

[illegible]

[illegible]

[illegible]

TABLE 36.—CAUSES OF DEATH (INTERMEDIATE LIST) OF INDIANS BY SEX AND AGE IN ALBERTA, BY PLACE OF RESIDENCE, 1951—Continued

CAUSES OF DEATH	Total	AGES																									
		Under 1 yr.	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years	100 years and over	Not stated
AN143 Head injury (excluding fracture)	Male	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
AN144 Internal injury of chest, abdomen, and pelvis.....	Female .....	..	..	..	..	..	..	..	..	1	2	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
AN145 Laceration and open wounds	Male	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
AN146 Superficial injury, contusion and crushing with intact skin surface	Female .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
AN147 Effects of foreign body entering through orifice...	Male .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
AN148 Burns	Female	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
AN149 Effects of poisons	Male	1	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
AN150 All other and unspecified effects of external causes	Female .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Male	5	2	..	..	..	..	..	..	..	2	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..
	Female	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE 37.—CAUSES OF DEATH (INTERMEDIATE LIST) OF HALF-BREEDS BY SEX AND AGE IN ALBERTA, BY PLACE OF RESIDENCE, 1951.

CAUSES OF DEATH	Total	AGES																		100 years and over	Not stated						
		Under 1 year	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years	65-69 years			70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years
ALL CAUSES	119	46	12	3	1	6	6	5	5	1	3	2	2	1	2	2	6	5	3	2	2	2	1	1	2	2	
A 1 Tuberculosis of the respiratory system	3	1	2	...	...	...	1	1	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 2 Tuberculosis of meninges and central nervous system	10	...	2	...	...	...	1	1	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 3 Tuberculosis of intestines, peritoneum and mesenteric glands	2	...	...	...	...	...	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 4 Tuberculosis of bones and joints	3	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 5 Tuberculosis, all other forms	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 6 Congenital syphilis	3	...	1	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 7 Early syphilis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 8 Tabes dorsalis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 9 General paralysis of insane	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 10 All other syphilis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 11 Gonococcal infection	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 12 Typhoid fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 13 Paratyphoid fever and other Salmonella infections	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 14 Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A 15 Brucellosis (undulant fever)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	
	

TABLE 37.—CAUSES OF DEATH (INTERMEDIATE LIST) OF HALF-BREDS BY SEX AND AGE IN ALBERTA, BY PLACE OF RESIDENCE, 1951—Continued

[illegible]

A 34	Infectious hepatitis	Male	.....
A 35	Rabies	Female	.....
		Male	.....
A 36	Typhus and other rickettsial diseases	Female	.....
		Male	.....
A 37	Malaria	Female	.....
		Male	.....
A 38	Schistosomiasis	Female	.....
		Male	.....
A 39	Hydatid disease	Female	.....
		Male	.....
A 40	Filariasis	Female	.....
		Male	.....
A 41	Ankylostomiasis	Female	.....
		Male	.....
A 42	Other diseases due to helminths	Female	.....
		Male	.....
A 43	All other diseases classified as infective and parasitic	Female	.....
		Male	.....
A 44	Malignant neoplasm of buccal cavity and pharynx	Female	.....
		Male	.....
A 45	Malignant neoplasm of esophagus	Female	.....
		Male	.....
A 46	Malignant neoplasm of stomach	Female	.....
		Male	.....
A 47	Malignant neoplasm of intestine, except rectum	Female	.....
		Male	.....
A 48	Malignant neoplasm of rectum	Female	.....
		Male	.....
A 49	Malignant neoplasm of larynx	Female	.....
		Male	.....
A 50	Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary	Female	.....
		Male	.....
A 51	Malignant neoplasm of breast	Female	.....
		Male	.....
A 52	Malignant neoplasm of cervix uteri	Female	.....
		Male	.....
A 53	Malignant neoplasm of other and unspecified parts of uterus	Female	.....
		Male	.....
A 54	Malignant neoplasm of prostate	Female	.....
		Male	.....
A 55	Malignant neoplasm of skin	Female	.....
		Male	.....
A 56	Malignant neoplasm of bone and connective tissue	Female	.....
		Male	.....

TABLE 37.—CAUSES OF DEATH (INTERMEDIATE LIST) OF HALF-BREEDS BY SEX AND AGE IN ALBERTA, BY PLACE OF RESIDENCE, 1951—Continued

CAUSES OF DEATH		Total	AGES																	Total	Not stated							
			Under 1 year	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years			65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years	100 years and over
A 57	Malignant neoplasm of all other and unspecified sites	Male .. Female ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 58	Leukaemia and aleukaemia	Male .. Female ..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..
A 59	Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system	Male .. Female ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
A 60	Benign neoplasms and neoplasms of unspecified nature	Male .. Female ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
A 62	Thyrototoxicosis with or without goitre	Male .. Female ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 63	Diabetes mellitus	Male .. Female ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 64	Avitaminosis and other deficiency states	Male .. Female ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 65	Anaemias	Male ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 66	Allergic disorders; all other endocrine, metabolic and blood diseases	Female .. Male .. Female ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 67	Psychoses	Male .. Female ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 68	Psychoneuroses and disorders of personality	Male .. Female ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 69	Mental deficiency	Male .. Female ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 70	Vascular lesions affecting central nervous system	Male .. Female ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
A 71	Nonmeningococcal meningitis	Male .. Female ..	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 72	Multiple sclerosis	Male .. Female ..	3	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A 73	Epilepsy	Male .. Female ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

[illegible]

TABLE 37.—CAUSES OF DEATH (INTERMEDIATE LIST) OF HALF-BREEDS BY SEX AND AGE IN ALBERTA, BY PLACE OF RESIDENCE, 1951—Continued

[illegible]

TABLE 37.—CAUSES OF DEATH (INTERMEDIATE LIST) OF HALF-BREEDS BY SEX AND AGE IN ALBERTA, BY PLACE OF RESIDENCE, 1951—Continued

CAUSES OF DEATH		Total	AGES																	and over Not stated								
			Under 1 year	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years		65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years	100 years
Alternative classification of accidents, poisonings and violence		Male Female	5							1		1	1			1						1						
AE138	Motor vehicle accidents	Male Female	2																			1						
AE139	Other transport accidents	Male Female	1								1																	
AE140	Accidental poisoning	Male Female																										
AE141	Accidental falls	Male Female																										
AE142	Accident caused by machinery	Male Female																										
AE143	Accident caused by fire and explosion of combustible material	Male Female																										
AF144	Accident caused by hot substance, corrosive liquid, steam, and radiation	Male Female																										
AE145	Accident caused by firearm	Male Female	1						1																			
AE146	Accidental drowning and submersion	Male Female																										
AE147	All other accidental causes	Male Female	1									1																
AE148	Suicide and self-inflicted injury	Male Female																										
AE149	Homicide and injury purposely inflicted by other persons (not in war)	Male Female																										
AF150	Injury resulting from operations of war	Male Female																										

[illegible]

TABLE 38.—POPULATION BIRTHS, MARRIAGES, DEATHS, AND RATES FOR THE YEARS 1905- 1951-

Year	Population	Number of Births	Rate Birth	No. of Births Received to Date	Number of Marriages	Marriage Rate	Number of Deaths	Death Rate	Infantile Death Rate per 1,000 Births	Puerperal Death Rate per 1,000 Births	Rate of Natural Increase
1905	.....	421	.....	4,032	187	.....	114	.....	.....	.....	.....
1906	185,000	3,003	20.41	4,702	927	6.77	1,091	7.36	90.00	.....	13.04
1907	236,000	4,732	20.05	5,900	1,907	8.08	1,578	6.68	100.27	.....	13.36
1908	266,000	5,973	22.45	7,495	2,032	7.63	2,188	8.22	126.57	6.33	14.22
1909	301,000	6,897	22.91	7,937	2,384	7.92	2,662	8.81	.....	6.02	14.07
1910	336,000	8,321	24.49	9,443	3,086	9.18	3,526	10.49	129.49	8.63	14.00
1911	374,000	8,813	23.56	10,732	3,630	9.70	3,618	9.67	134.46	9.75	13.88
1912	400,000	10,284	25.71	12,565	4,429	11.07	4,232	10.58	124.75	8.26	15.13
1913	429,000	11,871	28.47	14,434	5,053	12.12	4,432	10.63	120.47	7.07	17.84
1914	459,000	13,685	30.75	16,155	4,623	10.39	4,417	9.32	100.54	6.13	21.43
1915	480,000	13,452	28.90	15,679	4,202	9.06	3,588	7.73	87.9	5.79	21.26
1916	496,000	13,331	27.87	15,557	4,230	8.53	4,058	8.18	90.5	7.20	18.69
1917	508,000	13,576	27.01	15,668	4,270	8.54	4,047	8.09	87.30	6.48	18.92
1918	522,000	14,890	25.72	16,769	4,048	6.98	7,924	13.86	107.10	5.51	11.86
1919	522,000	14,890	23.95	16,127	4,718	7.90	5,507	9.33	110.30	6.44	14.62
1920	565,000	16,565	26.72	18,451	5,110	8.24	5,675	9.15	93.70	8.38	17.57
1921	588,000	16,414	27.89	18,104	4,661	7.92	4,940	8.39	85.65	7.24	19.50
1922	592,000	16,163	26.44	17,325	4,272	6.99	5,281	8.62	91.93	6.68	17.83
1923	593,000	15,153	25.75	16,183	4,177	6.09	4,843	8.06	90.54	5.50	18.75
1924	597,000	14,598	24.74	15,569	4,160	7.50	4,907	8.30	82.40	6.18	16.42
1925	602,000	15,014	25.02	15,796	4,363	7.27	4,717	7.86	72.90	5.76	16.16
1926	608,000	14,455	23.79	15,408	4,498	7.40	5,156	8.49	81.63	5.82	15.31
1927	633,000	14,897	24.03	15,565	4,707	7.58	5,059	8.16	74.51	6.38	15.87
1928	658,000	15,692	24.79	17,446	5,776	9.12	5,699	9.00	76.50	6.75	15.79
1929	684,000	16,924	26.19	17,628	6,004	9.29	6,239	9.65	77.40	7.26	16.54
1930	708,000	17,649	26.74	18,423	5,334	8.08	5,396	8.33	63.57	6.46	18.41
1931	732,000	17,252	23.57	18,108	5,142	7.02	5,302	7.24	69.38	5.04	16.32
1932	740,000	16,990	22.96	17,788	5,054	6.83	5,521	7.46	58.68	3.76	15.50
1933	748,000	16,123	21.33	16,915	5,389	7.10	5,346	7.07	59.90	4.43	14.24
1934	756,000	16,236	21.10	17,002	6,053	7.87	5,337	6.93	54.89	4.99	14.01
1935	770,000	16,183	21.0	16,962	6,010	7.7	5,729	7.3	57.8	4.2	14.0
1936	772,782	15,786	20.4	16,423	6,020	7.8	6,147	8.0	60.0	5.8	12.5
1937	778,000	15,903	20.4	16,492	6,345	8.2	6,261	8.0	63.0	4.9	12.4
1938	783,000	15,891	20.3	16,582	6,973	8.9	5,871	7.5	51.0	4.3	12.8
1939	789,000	16,470	20.9	16,903	7,838	9.9	5,789	7.3	46.0	3.5	13.6
1940	790,000	17,359	21.8	17,725	8,782	11.8	6,203	7.8	48.0	3.9	14.1
1941	796,169	17,308	21.7	17,590	8,470	10.7	6,385	8.0	51.0	3.6	13.7
1942	805,000	18,317	22.7	16,559	9,034	11.2	6,091	7.5	38.0	2.3	15.2

1943	.....	792,000	19,290	19,487	7,771	9.8	6,524	8.2	42.0	2.7	16.1
1944	.....	818,000	19,373	19,486	7,299	8.9	6,320	7.7	46.0	1.6	16.0
1945	.....	826,000	19,939	20,068	7,310	8.8	6,454	7.8	43.0	2.4	16.2
1946	.....	803,330	22,184	23,283	9,478	11.8	6,601	8.2	42.5	1.4	19.3
1947	.....	822,000	24,631	25,699	8,797	10.7	6,543	8.0	37.0	.9	22.0
1948	.....	846,000	24,075	24,075	8,844	10.5	6,987	8.0	39.0	1.2	20.2
1949	.....	871,000	24,935	24,951	9,037	10.4	7,083	8.2	33.0	1.0	20.5
1950	.....	895,000	25,625	25,659	9,294	10.4	6,856	7.7	32.0	0.7	21.0
1951	.....	939,501	27,003	27,027	9,305	9.9	7,167	7.6	33.0	0.6	21.1

TABLE 39.—RATIO OF MALE TO FEMALE BIRTHS, AND OF BIRTHS TO DEATHS

Year	Births of Males to 1,000 Births of Females	Ratio of Births to Deaths	Year	Births of Males to 1,000 Births of Females	Ratio of Births to Deaths
1905	1,059	3.13	1928	1,064	2.75
1906	1,094	2.07	1929	1,042	2.71
1907	1,075	2.96	1930	1,027	3.21
1908	1,077	2.73	1931	1,075	3.25
1909	1,086	2.59	1932	1,052	3.08
1910	1,065	2.69	1933	1,053	3.01
1911	1,103	2.43	1934	1,032	3.04
1912	1,084	2.43	1935	1,055	2.81
1913	1,053	2.67	1936	1,049	2.57
1914	1,081	3.30	1937	1,019	2.38
1915	1,000	3.74	1938	1,046	2.70
1916	1,063	3.29	1939	1,046	2.85
1917	1,061	3.25	1940	1,033	2.79
1918	1,069	1.88	1941	1,054	2.71
1919	1,074	2.56	1942	1,058	3.02
1920	1,055	2.92	1943	1,041	2.96
1921	1,055	3.32	1944	1,060	3.06
1922	1,034	3.06	1945	1,061	3.08
1923	1,072	3.13	1946	1,036	3.36
1924	1,036	2.97	1947	1,061	3.76
1925	1,036	2.97	1948	1,049	3.44
1926	1,053	2.80	1949	1,051	3.52
1927	1,065	2.94	1950	1,052	3.74
1928	1,064	2.75	1951	1,039	3.76

